

# **MERRIMACK VALLEY METROPOLITAN PLANNING ORGANIZATION**

## **FEDERAL FISCAL YEAR 2016 UNIFIED PLANNING WORK PROGRAM**



**July 30, 2015**

**Prepared by the  
MERRIMACK VALLEY  
PLANNING COMMISSION**

This document was prepared by the Merrimack Valley Planning Commission under Contract #75074 with the Massachusetts Department of Transportation (MassDOT) and under Contracts MA-80-008 and MA-80-009 with MassDOT, and with the assistance of the Merrimack Valley Regional Transit Authority (MVRTA), MassDOT, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). Its contents do not necessarily reflect the official views or policies of the U.S. DOT.

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Merrimack Valley Metropolitan Planning Organization

c/o Merrimack Valley Planning Commission

160 Main Street

Haverhill, MA 01830-5061

(978) 374-0519, extension 29

[tfontanella@mvpc.org](mailto:tfontanella@mvpc.org)

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## MVMPO Endorsement Page

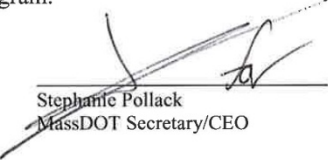


Merrimack Valley  
Planning Commission

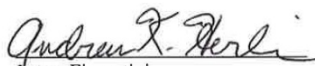
### MERRIMACK VALLEY METROPOLITAN PLANNING ORGANIZATION ENDORSEMENT

### MERRIMACK VALLEY REGION FEDERAL FISCAL YEAR 2016 UNIFIED PLANNING WORK PROGRAM

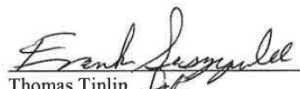
The undersigned representatives on the Merrimack Valley Metropolitan Planning Organization hereby endorse the Merrimack Valley region's Federal Fiscal Year 2016 Unified Planning Work Program.


  
Stephanie Pollack  
MassDOT Secretary/CEO

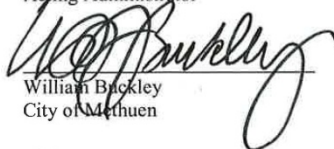
Joseph Costanzo  
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James Fiorentini  
Mayor of Haverhill

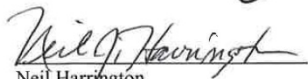
  
Dennis DiZoglio  
MVPC Executive Director

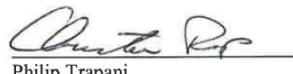
  
Thomas Tinlin  
MassDOT Highway Division  
Acting Administrator

  
Daniel Rivera  
Mayor of Lawrence

  
William Buckley  
City of Methuen

Robert Snow  
Town of Rowley

  
Neil Harrington  
Town of Salisbury

  
Philip Trapani  
Town of Georgetown  
CHRISTIAN ROOP

Date: July 29, 2015

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## MVMPO Self Certification Compliance Statement



Merrimack Valley  
Planning Commission

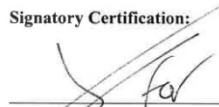
### Merrimack Valley Metropolitan Planning Organization Self Certification Compliance Statement

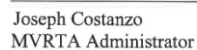
Concurrent with the submittal of the proposed FFY 2016 UPWP, FFY 2016 RTP and FFYs 2016-2019 TIP to the FHWA and the FTA, the MPO Policy Board shall certify that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including:

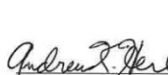
1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. In nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21; 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
4. Section 1101 (b) of the SAFETEA-LU (Pub. L. 109-59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
5. 23 CFR 230, regarding the implementation of an Equal Employment Opportunity Program on Federal and Federal-aid Highway construction contracts;
6. The provisions of the American with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
7. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
8. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
9. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities;
10. Anti-lobbying restrictions found in 49 USC Part 20. No appropriated funds may be expended by a recipient to influence or attempt to influence an officer or employee of any agency, a Member of Congress, in connection with the awarding of any Federal contract.


The MPO Policy Board also certifies both that the metropolitan transportation planning process has been conducted according to the procedures set forth in the Merrimack Valley MPO Public Participation Plan and that the Private Sector has been a participant in that process.

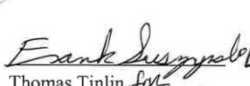
#### Signatory Certification:

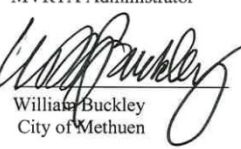
  
Stephanie Pollack  
Secretary/CEO Mass DOT

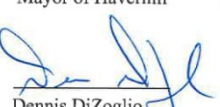
  
Joseph Costanzo  
MVTA Administrator


  
James Fiorentini  
Mayor of Haverhill

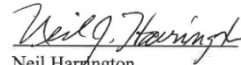
  
Daniel Rivera  
Mayor of Lawrence

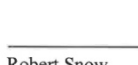
  
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CHRISTIAN ROOP

  
Neil Harrington  
Town of Salisbury

  
Robert Snow  
Town of Rowley

Date: July 29, 2015

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## **INTRODUCTION**

As mandated under the federal “3C” transportation planning process, the Unified Planning Work Program (UPWP), describes the transportation planning activities that are to be carried out by a Metropolitan Planning Organization (MPO) during the federal fiscal year (October 1 – September 30). In addition, the Moving Ahead for Progress in the 21st Century (MAP-21) transportation funding authorization act of 2012, requires that MPOs located in Transportation Management Areas (TMAs) prepare a UPWP that discusses the transportation planning priorities established by the MPO, describes the air quality planning activities that are to be conducted in the area, identifies the planning products that are to be produced, and identifies which agency will be responsible for producing these products. Since the Merrimack Valley region has been classified as a TMA by the Federal Department of Transportation (i.e. contains an urbanized area population of more than 200,000), it must therefore meet these requirements.

The Draft FFY 2016 UPWP for the Merrimack Valley Metropolitan Planning Organization (MVMPO) fulfills the above requirement by briefly describing and providing budgetary information for the transportation planning tasks and activities that are to be conducted in the region during this period. The Merrimack Valley Planning Commission (MVPC) will undertake most of these activities in its capacity as the transportation planning staff of the MVMPO. However, this document also includes those significant transportation planning and engineering studies that will be completed in its region by other government entities and organizations.

The UPWP must be prepared and endorsed annually by the MVMPO prior to the start of the planning program period before federal money may be spent on any transportation planning studies and activities in the region. The MVPC, as the transportation planning staff of the MVMPO, has the principal responsibility of maintaining the transportation planning process in the region as outlined in the 2010 Memorandum of Understanding (MOU), which was endorsed by the members of the MVMPO. In this role, the MVPC is responsible for annually preparing the UPWP for consideration and adoption by the MVMPO.

### **Merrimack Valley Metropolitan Planning Organization (MVMPO)**

The MVMPO was first created by the Governor of Massachusetts in 1972. Under federal transportation legislation, MPOs are assigned the important task of completing the planning and programming of all federally funded transportation projects and programs in their respective urbanized area.

The MVMPO covers the same 15-community geographic area that defines the MVPC region and the Merrimack Valley Regional Transit Authority service area.

The current MVMPO membership is as follows:

- Secretary of MassDOT - Stephanie Pollack
- MassDOT Acting Highway Division Administrator - Thomas Tinlin
- Executive Director of the Merrimack Valley Planning Commission - Dennis DiZoglio
- Administrator of the Merrimack Valley Regional Transit Authority - Joseph Costanzo
- Mayor of Haverhill - James Fiorentini
- Mayor of Lawrence - Daniel Rivera
- Representing Region 1 (Amesbury, Newburyport, Salisbury) - Neil Harrington
- Representing Region 2 (Newbury, Rowley, West Newbury) - Robert Snow
- Representing Region 3 (Boxford, Georgetown, Groveland, Merrimac) - Jeff Wade
- Representing Region 4 (Andover, Methuen, North Andover) - Bill Buckley

**Ex officio, non-voting MVMPO members** include:

- FHWA – Massachusetts Division Office Pamela S. Stephenson
- Federal Transit Administration – Region I - Mary Beth Mello
- Rockingham Planning Commission MPO (NH) - Tim Moore
- Boston MPO - Michelle Ciccolo
- Northern Middlesex MPO - Matt Hanson
- Nashua Planning Commission MPO (NH) - Janet Langdell

### **Organization of Draft FFY 2016 Unified Planning Work Program**

The MVMPO's UPWP is structured so that planning tasks are grouped into the following four areas:

Management and Support of the 3C Planning Process

Data Collection and Analysis Activities

Short and Long-Range Transportation Planning Activities

Other Transportation Studies

### **MVMPO Transportation Planning Priorities**

The UPWP may be thought of as the document that ensures that 3C planning process in the MVMPO region is implemented in a *cooperative* manner and recognizes the many influences that are at work at many levels in shaping the transportation network. The Continuing, Comprehensive and Cooperative ('3C') federal transportation planning process recognizes that a wide array of factors influence the multimodal transportation network and, conversely, many of these factors are influenced by this network. A milestone event in this regard occurred in 1991 with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA), which established

16 specific factors that MPO's were required to consider in developing the plans and programs mandated under the legislation. While the number of these factors has been consolidated to eight over the past 20+ years, the need to be *continuing* and *comprehensive* in considering them remains at the foundation of the 3C planning process.

Listed below are the key concepts, analyses, policies, programs and recommendations that influenced the selection of the studies and analyses contained in the MVMPO Draft FFY 2016 UPWP.

## **Regional Plans and Studies**

The following regional transportation studies, plans and areas of focus have played an important role in shaping the development of the FFY 2016 UPWP:

### **Bicycle and Pedestrian Planning**

During FFY 2015, the communities of Boxford, Georgetown, Newbury and Salisbury worked in cooperation with MassDOT, to advance the design of the Border to Boston Trail project. .

Merrimack Valley Planning Commission staff continued to work with local officials in Haverhill, Groveland and Georgetown to implement the recommendations made in the Georgetown Branch Rail Trail Feasibility Study. Notably, the Town of Groveland voted to use its Community Preservation Act funds to prepare 25% design plans for the Groveland Community Trail, which will utilize the old railroad right of way.

### **Title VI/Environmental Justice Planning**

In recent years, the MVMPO has worked in coordination with USDOT and MassDOT to increase its efforts to implement Title VI and EJ planning activities.

Between 2009 and 2013 MVMPO work tasks included revision of the MVMPO Public Participation Plan, Title VI Notification, Complaint Policy and form; integration of updated Census and American Community Survey data, and continued expansion of outreach to constituents in communities. Staff updated contact information, forged stronger working relationships with Community-Based Organizations (CBOs) and distributed information on its work in non-traditional formats (i.e. Facebook, attendance at community events) to engage Title VI and EJ populations.

Under the FFY 2015 UPWP, staff updated the MVMPO's Title VI Program, which included an analysis of the region's protected populations at the Census Block Group level of geography. In addition, MVMPO staff:

- Updated information required by FTA regulations pertaining to compliance with Title VI of the Civil Rights Act of 1964 and Executive Order 12898 regarding Environmental Justice.

- Implemented recommendations and increased solicitation of input from minority, low-income and elder constituents.
- Made presentations on planning issues at neighborhood meetings in areas where low-income and minority populations are present as well as at locations or events involving elders and the disabled.
- Assisted the MVRTA in implementing evaluation measures for its outreach to Limited English Proficiency (LEP) populations as well as research additional recommendations for improving its outreach to these groups.
- Monitored MVMPO transportation funding, project prioritization and investments as to how they benefit and/or burden protected populations.

### **MVMPO Regional Transportation Plan**

The MVMPO prepared its FFY 2016 RTP under the FFY 2015 UPWP. It is the first MVMPO RTP to address the MAP-21 requirement that performance and outcome-based planning methods must be used to guide the programming of transportation capital investments. It also establishes a series of Goals and Objectives that the Organization should pursue in an effort to improve the transportation network. The Goals for the transportation network set forth in the RTP are:

- Maintain the System in a state of good repair;
- Increase Safety for All Modes
- Promote Economic Vitality
- Support Transportation Equity
- Promote Environmental Sustainability

### **Route 114 Corridor Study**

The Route 114 Corridor in Lawrence and northern North Andover is one of the MVMPO region's most congested roadways. Under the FFY 2011 UPWP, MVPC completed a corridor transportation study that considers existing traffic and safety problems, forecasts future travel demand and made a series of recommendations that address the recurrent congestion problems that have plagued the area for many years. The implementation of these recommendations is one of the MVMPO's highest priorities.

Under the FFY 2015 UPWP, MVMPO staff continued to work with local officials to bring the recommendations contained in its FFY 2010 study to realization. In December 2014, MassDOT approved a project that would make improvements to the section of the corridor from Andover Street to the Stop and Shop Driveway in North Andover. Staff also provided assistance to the City of Lawrence in the latter's submission of a TIGER Grant to FHWA that would fund improvements to the corridor in Lawrence and North Andover. Staff will continue advancing this project under the FFY 2016 UPWP.

## **Priority Growth Strategy**

In 2009, MVPC staff completed the Merrimack Valley Priority Growth Strategy (PGS), its first regional master plan in over 30 years. The 2009 PGS was prepared with MVPC communities' direct participation and was well received by planning professionals and local/state elected officials. The National Association of Development Officials (NADO) recognized the PGS as a "Best Practice" in 2009 and awarded the MVPC an Innovation Award for the PGS in 2011. FHWA subsequently featured the PGS on its *Transportation Planning Capacity Building* website as the latest example of an Innovative Project (FFY 2014). The MVPC staff has since assisted many of its communities with implementing 2009 PGS findings and recommendations.

In 2011, the MVPC staff developed a PGS implementation plan with funding from the Commonwealth's Executive Office of Housing and Economic Development. This plan, entitled the '*Merrimack Valley Regional Strategic Framework Plan*', informed an MVPC / EOHD discussion on how to integrate the Strategic Framework Plan with the Commonwealth's then-new "Planning Ahead for Growth" initiative. MVPC and EOHD staff worked together to identify which of the 57 regional "Concentrated Development Centers" identified in the PGS had statewide significance and could be designated as "Priority Development Areas." The same exercise was done for identifying "Priority Preservation Areas".

Under the FFY 2014 UPWP, the MVPC staff completed a PGS update to ensure that the PGS land use, transportation, environment, and other content captured any changes that had occurred over the five years since it released the 2009 PGS. The MVPC adopted its PGS update in January 2015. The MVMPO staff will use the Priority Growth Strategy Update to help define the preferred land use and zoning scenario that will be considered in the Merrimack Valley MPO's FFY 2016 Regional Transportation Plan.

## **Congestion Management Process (CMP)**

The CMP is a USDOT-mandated planning tool that MPOs with Urbanized Areas of more than 200,000 people must use to:

- Comprehensively examine and monitor congestion on an MPO's transportation network;
- Identify congested areas/components, and
- Recommend actions to resolve specific congestion issues. These recommendations often result in traffic analyses and studies that appear in a region's UPWP.

The MVMPO staff last updated its CMP in FY 2011 to support development of its FY 2012 RTP. Since then, staff has identified a number of congested MVMPO region locations and added them to the CMP. Staff has subsequently studied many of these locations in more detail under recent UPWPs. Location examples include the Marston's Corner inter-



section in Methuen, MA-28 in Methuen between MA-213 and the Massachusetts-New Hampshire boundary, and the intersection of MA-28 (Broadway) and MA-110 (Haverhill Street) in Lawrence. Under the FFY 2015 UPWP, staff collected traffic volume and travel time data on federal aid roadways in the region that it will use to maintain the CMP in FFY 2016.

### **Safety Monitoring System (SMS)**

Similar to the CMP, the SMS is used by the MVMPO to identify components of the regional transportation network that have safety issues. The SMS uses crash data provided by MassDOT, local police departments, the MVRTA and other sources to identify safety problems for motor vehicles, bicycles and pedestrians, and transit riders in the region. Any potential problem areas identified through the SMS are often studied in more detail through tasks included in the UPWP in order to determine if a safety problem truly exists and, if so, to identify what steps need to be taken next to address it.

Under the FFY 2015 UPWP, staff participated in two Road Safety Audits in the region that were held at locations that met MassDOT's criteria that such locations be within the top five percent of intersections based on the Equivalent Property Damage Only (EPDO) scoring system. These included the intersection of Park Street and Lawrence Street in the City of Lawrence, the I-495/Route 114 Interchange also in Lawrence, as well as the intersection of Route 113 (Storey Avenue) with Low Street and Woodman Way in the City of Newburyport.

### **State Policies and Plans**

The Commonwealth of Massachusetts has completed a series of transportation planning activities that will influence transportation planning as well as transportation project programming and development activities across the state. The MVMPO staff has outlined these plans and the Commonwealth's continuing commitment to encourage Sustainable Development below as it formulates the region's FFY 2016 UPWP.

### **Chapter 46 – An Act Relative to Transportation Finance**

While the title of this 2013 act shows that it was intended to provide funding for the Commonwealth's transportation network, it also contained numerous provisions related to the management of the state's transportation infrastructure. It contained provisions establishing the development of The Performance and Asset Management Advisory Council, required the preparation of Comprehensive Regional Transit Plans and established the Project Selection Advisory Council, which it charged with responsibility of developing the project selection criteria to be used in the development of the comprehensive state transportation plan. All of these provisions will play a role in shaping the transportation planning process in FFY 2016 and the years to come.



## **weMove Massachusetts planning for performance**

MassDOT introduced a number of firsts with the passage of *weMove* Massachusetts. It was the first multimodal transportation plan created by the agency since its restructuring in 2009. It was also the first plan to introduce performance management measures into the capital planning process.

*weMove* Massachusetts evaluates the long-term performance of the transportation network under two alternative funding scenarios: 1) assuming that **historical** funding levels would be in place and, 2) assuming that the current funding levels authorized under Chapter 46 would be available. These impacts were measured in a number of areas such as pavement condition, bridge condition, mobility, bicycle transportation and safety.

<http://www.massdot.state.ma.us/wemove/Home.aspx>

## **"GreenDOT"**

Launched by MassDOT in July 2010, the **GreenDOT** initiative is designed to make Massachusetts a progressive state in how its transportation network coexists with the environment and supports sustainable development (see *Sustainable Development Criteria* on Page 6). Three of its primary goals are:

- To reduce greenhouse gas (GHG) emissions;
- Promote the healthy transportation options of walking, bicycling, and taking public transit, and
- Support smart growth development.

Through the Global Warming Solutions Act, which was enacted by the legislature in 2008, Massachusetts has committed to reducing statewide GHG emissions between 10-25% from 1990 levels by 2020 and by at least 80 from 1990 levels by 2050. To help achieve these GHG emissions reductions, MassDOT has committed to tripling the mode shares for walking, bicycling and public transportation throughout the Commonwealth. Transit usage would be increased by offering more hours of service, improving bus route designs/schedules, reducing bus/train headways and upgrading the condition of rolling stock and other equipment. Improving travel accommodations for bicyclists and pedestrians through a "Complete Streets" approach to improving the state's transportation network will make it easier and safer for persons to bike and/or walk.

To further assist in the effort to reduce the number of Single Occupancy Vehicles in the Commonwealth, MassDOT has developed **MassRides**, a statewide travel options program that is designed to help people make more informed decisions about carpooling, bicycling, walking, public transportation, teleworking, and vanpooling.

In December 2012, MassDOT released its GreenDOT Implementation Plan, which establishes 15 broad sustainability goals to decrease the level of resources needed to sustain

the Commonwealth's transportation network. It includes many specific measures for reducing GHG emissions in the state including providing alternative fueling options at highway service areas and installing 30 electric vehicle charging stations along the state highway system as well as at transit parking areas. A logical location for such a station would be the Newburyport Park and Ride Lot, which is located adjacent to I-95 and is the busiest such facility in the Commonwealth.

The **Healthy Transportation Policy Directive**, released by MassDOT in 2013, modified MassDOT's Design Criteria for Projects and Bicycle Accommodation in a few key ways including requiring sidewalks on *both sides* of roadways in urban areas, on *both sides of bridges* and/or on *roadways passing beneath bridges*, and on MassDOT facilities whenever adjacent commercial/pedestrian development density is greater than 5 units/acre.

### **Massachusetts Statewide Plans for Freight and Rail**

In FFY 2011 MassDOT completed work on the State Freight Plan and the State Rail Plan. As part of these plans, MassDOT's consultant completed a comprehensive analysis of freight flows within Massachusetts and to/from Massachusetts. MassDOT has also reviewed the state of rail, truck, air, and water freight transportation in the Commonwealth and forecasted the amount of freight that will be carried by each mode in the year 2030. MassDOT projects that freight traffic in Massachusetts will grow by 70% over the next 20 years with all modes carrying more tonnage than today but with trucking significantly increasing its market share.

MassDOT cited some MVMPO region freight rail infrastructure capacity limitations. Some track structures do not support 286,000 pound carloads (which is becoming the industry standard) or the 20'8" clearances required for full-doublestack container capacity. In addition, the poor condition of the Merrimack River Bridge in Haverhill as another factor limiting the growth of freight rail service in the Commonwealth.

### **Accelerated Bridge Program**

Chapter 233 of the Acts of 2008 provided \$3 billion in bonding authority for the implementation of an Accelerated Bridge Program (ABP) in the Commonwealth. The goal of the program is to accelerate work on repairing/replacing over 200 MassDOT and Massachusetts Department of Conservation and Recreation – owned bridges that are classified as Structurally Deficient (SD) or are in jeopardy of soon being classified as such. This infusion of state funding will allow for the completion of many bridge projects much sooner than would otherwise be possible and thereby result in lower construction costs.

Six Merrimack Valley region bridge repair or replacement projects are included in the ABP. These are listed below along with their current status:

- Replacement of the Whittier Bridge, which carries I-95 over the Merrimack River between Amesbury and Newburyport. (Construction)
- Replacement of the Route 28 Bridge over the MBTA railroad tracks in Andover; (Construction)
- Repair of the Route 28 Bridge over the Merrimack River in Lawrence; (Complete)
- Reconstruction of the Route 125 Connector Bridge over Ferry Road and the MBTA railroad tracks in Haverhill; (Complete)
- Rehabilitation of the Rocks Village Bridge over the Merrimack River between Haverhill and West Newbury; Complete)
- Cleaning and painting of the Gillis Bridge which carries Route 1 over the Merrimack River between Salisbury and Newburyport (Complete)

### **Sustainable Development Criteria**

The Commonwealth of Massachusetts has established a goal of stewardship for both the built and natural environment through the promotion of what is called “sustainable development.” This strategy relies on the integration of efforts within the state’s energy and environment, housing and economic development, transportation and other programs including policies investments, and regulations. This is to be accomplished through the pursuit of the following sustainable development principles:

1. **Redevelop first.** Support the revitalization of community centers and neighborhoods. Encourage reuse and rehabilitation of existing infrastructure rather than the construction of new infrastructure in undeveloped areas. Give preference to redevelopment of Brownfields, preservation and reuse of historic structures and rehabilitation of existing housing and schools.
2. **Concentrate development.** Support development that is compact, conserves land, integrates uses, and fosters a sense of place. Create walkable districts mixing commercial, civic, cultural, educational and recreational activities with open space and housing for diverse communities.
3. **Be fair.** Promote equitable sharing of the benefits and burdens of development. Provide technical and strategic support for inclusive community planning to ensure social, economic, and environmental justice. Make regulatory and permitting processes for development clear, transparent, cost-effective, and oriented to encourage smart growth and regional equity.
4. **Restore and enhance the environment.** Expand land and water conservation. Protect and restore environmentally sensitive lands, natural resources, wildlife habitats, and cultural and historic landscapes. Increase the quantity, quality and accessibility

of open space. Preserve critical habitat and biodiversity. Promote developments that respect and enhance the state's natural resources.

5. **Conserve natural resources.** Increase our supply of renewable energy and reduce waste of water, energy and materials. Lead by example and support conservation strategies, clean power and innovative industries. Construct and promote buildings and infrastructure that use land, energy, water and materials efficiently.
6. **Expand housing opportunities.** Support the construction and rehabilitation of housing to meet the needs of people of all abilities, income levels and household types. Coordinate the provision of housing with the location of jobs, transit and services. Foster the development of housing, particularly multifamily housing, that is compatible with a community's character and vision.
7. **Provide transportation choice.** Increase access to transportation options, in all communities, including land and water based public transit, bicycling, and walking. Invest strategically in transportation infrastructure to encourage smart growth. Locate new development where a variety of transportation modes can be made available.
8. **Increase job opportunities.** Attract businesses with good jobs to locations near housing, infrastructure, water, and transportation options. Expand access to educational and entrepreneurial opportunities. Support the growth of new and existing local businesses.
9. **Foster sustainable businesses.** Strengthen sustainable natural resource-based businesses, including agriculture, forestry and fisheries. Strengthen sustainable businesses. Support economic development in industry clusters consistent with regional and local character. Maintain reliable and affordable energy sources and reduce dependence on imported fossil fuels.
10. **Plan regionally.** Support the development and implementation of local and regional plans that have broad public support and are consistent with these principles. Foster development projects, land and water conservation, transportation and housing that have a regional or multi-community benefit. Consider the long-term costs and benefits to the larger Commonwealth.

#### **District Local Technical Assistance Program (DLTA)**

The Massachusetts Legislature created the DLTA Program to support implementation of the above Sustainable Development Principles. The Commonwealth's Executive Office of Administration and Finance has authorized distribution of DLTA funding to the Commonwealth's regional planning agencies to assist their communities with planning service. DLTA funds can be used for a variety of purposes including developing shared land use objectives, reviewing and modifying existing local zoning and land use controls, and creating municipal partnerships.

## **MBTA FY 2015-2019 Capital Investment Program (CIP)**

The Merrimack Valley region is served by two MBTA commuter rail lines (Haverhill and Newburyport lines) and seven train stations that provide important links to the Metro Boston area. Information on projects affecting MBTA commuter rail service in general and along these two commuter lines is contained in the MBTA's CIP which, as noted in the Introduction of the document, "...is a guide to the MBTA's five-year capital budget". It is important to note that, like the MVMPO's TIP, the MBTA CIP is a fiscally constrained document, which means that all the projects appearing in it have identified sources of funding for their implementation.

Two significant projects appearing in the MBTA's FY 2015-2019 Capital Investment Program impact the Merrimack Valley MPO region and are described below:

### Haverhill Line Double-Tracking Project

This project (in construction) will add a second main line track along the MBTA Haverhill Line from Andover Street in Lawrence south to the 'Wildcat Branch' junction in Andover, a distance of 5.5 miles. Once completed in 2016, the additional length of second track will make it easier to schedule MBTA Commuter Rail, AMTRAK Downeaster, and PanAm Railways trains along this heavily used section of line. This additional track also offers the possibility of improving the level of MBTA Commuter Rail Service to the MVMPO region.

### Rehabilitation of the Merrimack River Railroad Bridge

Originally built in 1919, this bridge consists of three spans that carry the MBTA Haverhill Line over the Merrimack River, the northern approach to the river, and Washington Street near the MBTA's Haverhill Station. Much of the rail freight from eastern New Hampshire, Maine, and eastern Canada must pass over this structure as do the AMTRAK Downeaster and all MBTA Commuter Rail trains. Due to its poor condition, freight trains currently must travel over the bridge at five miles per hour and only one freight train at a time can pass over the structure. MBTA Commuter Rail and AMTRAK Downeaster trains can only travel over the bridge at 15 mph. Once the project is completed in 2017, freight trains will be able to travel at 30 mph over the new spans and two freight trains will be able to cross the spans at the same time.

## **Project Selection Advisory Council**

Created by the Legislature as part of *Chapter 46 – An Act Relative to Transportation Finance* in 2013, the Council met throughout 2014 and 2015 to develop recommendations for modifying the process that is used to evaluate, select and develop transportation projects in the Commonwealth. The Advisory Council prepared a report outlining its preliminary findings and recommendations early in June 2015 and will submit its final report to the Legislature by the end of the month.

## **MVRTA Regional Transit Plan**

The MVRTA has completed its Comprehensive Regional Transit Plan. This document addresses fixed route bus service by examining route ridership, evaluating individual bus routes, identifying areas for transit service and includes service recommendations for FY 2016, 2017 and 2018. The Plan also identifies areas for additional study in FY 2016. Since this Regional Transit Plan will be used by the MVRTA to plan for and implement transit services in the future any transit proposals must be included in this Plan in order to receive consideration for programming and implementation by the MVRTA.

## **2014 Coordinated Human Services Transportation - Public Transportation Plan**

This Plan is an update not only of the 2007 Coordinated Human Service Public Transportation Plan, but the subsequent Elderly and Disabled Transportation Plans, and the 2013 Transit Mobility Plan that were jointly prepared by the MVMPO staff and the MVRTA. Like the preceding plans referenced above, it is an action plan for the MVMPO's transit planning and funding activities but *unlike* those previous plans it also considers the collaborative work of the Merrimack Valley Regional Coordinating Council (MVRCC), an entity created through Commonwealth Executive Order 530 to increase coordination among all transit service providers, including the RTAs and human services agencies.

Through the public outreach effort that was followed in developing the 2014 Coordinated Human Services Plan, MVMPO staff identified a wide range of proposed transit services that would address perceived gaps in the region's transit/transportation network. Among these were recommendations for modifying existing MVRTA bus routes, development of new routes that would serve destinations outside the MVRTA service area, and improving the level of MBTA service in the region.

## **I-93 Preferential Lane Study – Phase II**

As the MVMPO was completing its feasibility study of providing Bus on Shoulder (BoS) transit service in the I-93 Corridor between New Hampshire and Boston, CTPS completed its reversible preferential lane analysis for the I-93 segment between MA-133 in Andover and the Central Artery North Area (CANa) in Boston. A preferential lane would permit higher bus operating speeds and carpools/vanpools and other modes of travel that would not be allowed in the shoulder; however, BoS permitting tasks and construction/operation cost advantages are extremely modest by comparison and have proven their value in transportation benefits in many U.S. applications. The MVMPO staff delivered its draft BoS Study to MassDOT for inspection in FFY 2015 and expects to continue discussing I-93 corridor transportation options with MassDOT in FFY 2016.

## **Active Transportation Plan for the Merrimack Valley**

Adopted in January 2015, the Active Transportation Plan for the Merrimack Valley sets the tone for how the Merrimack Valley MPO intends to achieve the following Vision:



*The Merrimack Valley region will be connected by safe, convenient and appealing Active Transportation corridors that people of diverse ages and abilities will choose to use. The MVPC and its communities will achieve this vision by increasing bicycling and walking mode shares to promote environmental sustainability and healthier lifestyles while reducing automobile dependence and improving air quality. We will connect jobs, housing, civic and recreation activities to strengthen our region's livability and economic vitality.*

The document contains specific Goals, Strategies and Performance Measures that are designed to support achieving this Vision. These tools will be used as part of the ongoing process of evaluating the nearly 100 regionally-significant and priority community level bicycle and pedestrian initiatives that have been proposed for the region. In the coming years, the Merrimack Valley MPO will support the development and implementation of those that most effectively support these Goals and Strategies.

### **MVRTA Paratransit Study**

The Authority will be participating in two studies involving paratransit service that will be conducted through the Massachusetts Association of Regional Transit Authorities (MARTA). The first study will be concerned with the provision of service under the requirements of the Americans with Disabilities Act. The second study will be concerned with non-ADA paratransit services. Scopes of Work are being prepared for these two studies. Both studies are anticipated to be underway in Federal Fiscal Year 2016. MVPC staff will be assisting the MVRTA in this effort.

### **Strategic Highway Safety Plan**

SAFETEA-LU included a new "core" program, the Highway Safety Improvement Program (HSIP), which is designed "to achieve a significant reduction in traffic fatalities and serious injuries on all public roads." Funds may be used for design and/or construction of projects on any public road or publicly owned bicycle and pedestrian pathway or trail.

The Massachusetts State Highway Safety Plan was developed in 2005 and 2006 and endorsed by local and regional stakeholders in September 2006. The document reviewed a range of data regarding crashes that involved fatalities and incapacitating injuries. It revealed that Massachusetts fared worse than the nation in crashes that involved vehicles leaving a travel lane, and crashes involving pedestrians and bicyclists.

During FFY 2014, the MVMPO programmed FFY 2016 HSIP funds in the FFY 2013-2016 TIP for the construction of roadway improvements at the Route 125 (Chickering Road)/Massachusetts Avenue intersection in North Andover, and for the section of the Route 125 Corridor in Haverhill between Winter Street and Merrimack Street. The MVMPO had previously used HSIP funds to complete the design for both projects.

## **Federal Transportation Planning Legislation and Initiatives**

### **Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21)**

On July 6, 2012, President Obama signed into law P.L. 112-141, the Moving Ahead for Progress in the 21st Century Act (MAP-21), the successor transportation funding authorization legislation to SAFETEA-LU. While MAP-21 builds on and refines many of the highway, transit, bike, and pedestrian programs and policies originally established in ISTEA, it does introduce a number of significant changes with perhaps the most important of these being that "...it transforms the policy and programmatic framework for investments to guide the growth and development of the country's vital transportation infrastructure."

Key changes contained in MAP-21 include:

- Expanding the National Highway System (NHS) to incorporate principal arterials not previously included. Investment targets the enhanced NHS and targeting more highway funding going to the new program devoted to preserving and improving these highways, the National Highway Performance Program.
- Creation of the National Highway Performance Program, which is designed to support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.
- Establishing performance-based planning and programming as a means to more efficient investment of federal transportation funds by focusing on national transportation goals, increasing the accountability and transparency of the federal highway programs, and improving transportation investment decision-making.
- Consolidating funding programs such as creating the Transportation Alternatives Program (TAP) – a new program, with funding derived from the NHPP, STP, HSIP, CMAQ and Metropolitan Planning programs. It encompasses most activities funded under the Transportation Enhancements, Recreational Trails, and Safe Routes to School programs under SAFETEA-LU.
- Expanding funding for the Highway Safety Improvement Program.
- Accelerating the project delivery process and promoting innovation.

Many of the tasks contained in this UPWP are designed to integrate these new program initiatives into the MVMPO's transportation planning process.



## Climate Change/Livability

FHWA has issued guidance to MPOs in coastal areas to identify those transportation facilities that could be impacted by rising sea levels and from flooding and to develop a program of studies to review both drainage plans and the adequacy of drainage structures in these areas.

The concept of livability in transportation is really a recognition that the transportation network plays a major role in affecting the quality of life of residents in the area it serves. As noted by FHWA on its website:

*“The transportation network should provide residents with choices, an effort to tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, and safe streets. This includes addressing safety and capacity issues on all roads through better planning and design, maximizing and expanding new technologies such as ITS and the use of quiet pavements, using Travel Demand Management approaches to system planning and operations, etc.”*

Notably, MVPC prepared its regional Priority Growth Strategy (PGS) with particular emphasis upon how the region's transportation network impacts livability in cities and towns in the Merrimack Valley. The PGS contains numerous recommendations for improving bicycle, pedestrian and transit transportation to Community Development Centers (CDCs) throughout the Valley. MVPC will continue its efforts to implement these and other recommendations in the PGS in FFY 2015 to support sustainable development principles in the Valley and, in doing so, improving the quality of life.

## FHWA Priorities for FY 2016 UPWP Development

**MAP-21 Implementation:** The FHWA encourages MPOs to transition to the use of performance measures throughout the Transportation Planning Process.

**Models of Regional Planning Cooperation:** This emphasis area is intended to promote cooperation and coordination across MPO boundaries and across State boundaries, where appropriate. This could include developing planning agreements that identify how the planning process and planning products will be coordinated.

**Ladders of Opportunity:** As part of the transportation planning process, MPOs should identify transportation connectivity gaps in access to essential services. Essential services include housing, employment, health care, schools/education, and recreation. This emphasis area could include identification of performance measures and analytical methods to measure the transportation system's connectivity to essential services and the use of this information to identify gaps in transportation system connectivity that preclude access of the public, including traditionally underserved

populations, to essential services. It could also involve the identification of solutions to address those gaps.

### **Other Transportation Planning Studies**

In addition to the studies, analyses and legislation described above, a number of transportation planning studies have been implemented in the region and surrounding areas by other agencies. These include:

- **Plaistow Commuter Rail Study:** Working in cooperation with the Town of Plaistow, NH and the Rockingham MPO, NHDOT has initiated a feasibility study for instituting commuter rail service between Plaistow, NH and North Station. The study will evaluate alternative station sites, sites for a layover facility, identify capital and operating costs, and development opportunities that would be generated through the introduction of rail service. MVPC staff participated on the Study Advisory Committee under the FFY 2015 UPWP.
- **Interstate 495 Corridor Study:** Completed in 2008, MassDOT undertook this study in recognition of the growing congestion that exists along the roadway, especially in the western Merrimack Valley and eastern Northern Middlesex regions and the fact that many of the interchanges along this section of roadway have not been improved since the facility was built in the early 1960s.

The study recommends an array of short and long-term improvements for the corridor. Short-term improvements include the retiming of existing signals at exit and entrance ramps, signaling many of these ramp junctions in the next few years, and restriping the existing roadway to increase the length of many of the substandard acceleration and deceleration lanes. Long-term improvements call for the widening of the roadway between Route 225 in Westford and Route 110 (Exit 49) in Haverhill.

- **Newburyport Intermodal Parking Facility:** The MVRTA and the City of Newburyport have completed a Preliminary Engineering study to identify the preferred site for this facility and to review local transit needs. In May 2010, the City Council approved the construction of the new facility on Titcomb Street, which is located just behind City Hall. Since that time, the MVRTA has been working with city officials to further refine alternative design concepts for this site, and pursued grant funds for construction. The MVRTA's FFY 2016-2020 Capital Plan includes funding for the construction of this facility.

### **Other MVPC Planning Studies and Funding Sources**

In addition to the transportation studies and analyses undertaken by the Commission on behalf of the MVMPO, as a comprehensive planning agency the MVPC is active in studies, initiatives and analyses that address economic development, land use, open space and environmental matters that often directly impact the region's transportation network.

The Merrimack Valley region is designated an Economic Development District (EDD) by the U.S. Economic Development Administration (EDA) of the Department of Commerce. EDA is the main economic development agency of the federal government and works with EDDs throughout the country to promote regional cooperation and job growth. MVPC is the designated liaison between EDA and the 15- community Merrimack Valley region and manages the Merrimack Valley Comprehensive Economic Development Strategy (CEDS) Program. In addition to producing the regional CEDS document, this program consists of; organizing regional CEDS meetings; public works grant assistance; information support through MVPC's regional demographic data center and economic impact model; and support for regional initiatives such as the Brownfields assessment program and "Means Business" websites. Recent activities in these areas are noted below:

- **Comprehensive Economic Development Strategy:** The 2013 the Merrimack Valley Comprehensive Economic Development Strategy (CEDS) was submitted to the U.S. Economic Development Administration (EDA). The CEDS is funded primarily through an annual planning grant from EDA, which is the principal economic development agency of the federal government. EDA requires planning districts to update their CEDS once every five years, with annual Performance Reports in between. The Merrimack Valley has been designated an Economic Development District by EDA since 1986.

The 2013 CEDS features an updated list of goals, objectives, and plan of action. The regional five-year vision is highlighted by three Executive Actions for immediate consideration: 1) enhanced regional marketing of economic development resources and opportunities available; 2) increased coordination of local capacity assistance in critical planning issues such as priority development sites, Chapter 40R establishment, streamlined permitting, complete streets, stormwater management, and compact neighborhoods and, 3) identifying critical workforce development needs, programs, and partnerships in the Merrimack Valley.

Implementation of the CEDS began as soon as the five year strategy was completed in 2013. Updates were completed and submitted to EDA in 2014 and 2015. These updates are available for viewing on the MVPC website.

Enhanced marketing of the region is being done through an updated and streamlined Merrimack Valley Means Business (MVMB) website and marketing initiative. Working closely with the Merrimack Valley Mayors and Managers Coalition (MVMMC), we have better marketed the region to prospective developers and businesses. MVMB.biz now features an easy to use property search tool, highlights priority development projects, and provides quick links to key municipal officials, zoning links, and other important information on doing business. MVPC has applied for an EDA grant to help market the website and region and should hear on its success by the end of June, 2015.

A Cluster Analysis was completed which identified four industry clusters driving economic growth in the region: Food Manufacturing, Electronics, Life Sciences, and Metal Fabricators. We are now working with the local Workforce Investment Board trying to target workforce assistance to businesses in these clusters.

Our Local Capacity Assistance has developed into the "Merrimack Valley Support Team" - a new regional resource entity to assist communities in the Merrimack Valley with their unique economic and community development needs. The support team will provide ongoing training to local staff on development matters and will encourage the sharing of resources and bolster communication and cooperation in the region. We are currently working on projects with the City of Methuen, the Town of Groveland, City of Newburyport, and Town of Merrimac.

- **Brownfields Assessment:** MVPC has submitted a three-year \$400,000 grant application to EPA to extend the Merrimack Valley Brownfields Assessment program to 2018. The program, which began in 2003, has completed over 70 site investigations and reports on Brownfields sites throughout the Merrimack Valley. Many of these investigations have resulted in the cleanup and reuse of formerly contaminated properties into affordable housing, educational facilities, community gardens, parks, and rail trails.

The Commission received supplemental funding from EPA to recapitalize our Brownfields Cleanup Revolving Loan Fund. This program financed cleanup activities in downtown Amesbury and Salisbury. We are currently seeking to secure funds to assist in the cleanup of a site in Merrimac with hopes of building affordable housing on the site once cleaned.

- **Priority Growth Strategy:** Early in 2015, the Commission approved the update to MVPC's comprehensive plan for the region titled "Merrimack Valley Priority Growth Strategy". The Strategy identifies where the region encourages growth, where the region would like to preserve and protect land from development, and how the transportation network of the region can be upgraded and enhanced to sustain and connect these development patterns.
- **Regional Data Center:** MVPC is the regional repository of demographic data from various federal and state agencies. In 2014, MVPC continued collecting and analyzing data releases from the U.S. Census and American Community Survey. The Merrimack Valley region's population grew by 4.8% compared to 3.1% for the balance of the entire State. Local population, race, and housing unit totals from the 2010 U.S. Census show our region growing, albeit more slowly than in previous censuses, and continuing to diversify. The region traditionally has seen its population grow faster than the State as a whole. After the 1990 U.S. Census the region saw a 10.5% increase compared to a State increase of 4.9% and in 2000 the region again saw a 10.5% increase with the State realizing a

5.5% increase. The total population for the 15-community Merrimack Valley region now stands at 333,748, up from 318,556 in 2000.

- **Other Economic Development Support:** MVPC staff handled numerous demographic data inquiries and requests for regional economic development overviews for businesses, individuals, and community officials.

### **Transportation Planning Program Years Covered by This Document**

The transportation planning tasks and activities in the Draft FFY 2016 UPWP were developed by the MVPC and MVRTA in cooperation with FHWA, MassDOT, FTA, local officials and the input of MVMPO Stakeholders. These activities will be financed in large part with federal planning funds provided by FHWA and FTA. Funding for the contract between MassDOT and the MVPC will be wholly provided by the Commonwealth, which will later receive 80% reimbursement from US DOT. Transit planning activities will be carried out under the Section 5303 and Section 5307 contracts between MassDOT and the MVPC, and MVRTA and the MVPC, respectively.

All planning tasks to be initiated under the FFY 2016 UPWP will be performed by either the MVPC or private consultants through the contracts described above. Contract #75074 between MassDOT and MVPC began on October 1, 2012 and will end on September 30, 2016. It will fund many of the highway-related transportation planning tasks to be undertaken in the FFY 2016 UPWP.

Two FTA Section 5303 transit planning contracts between MassDOT and MVPC will support the 3C planning process in FFY 2016. Contract X009 went into effect on April 1, 2015 and will end on March 30, 2016. Contract X010 will begin on April 1, 2015 and continue through March 30, 2016. Finally, the transportation planning activities funded through the Section 5307 contract between the MVRTA and the MVPC will be in effect from October 1, 2015 through September 30, 2016.

### **Transportation Planning Factors Considered Under MAP-21**

As noted above, ISTEA established 16 factors that MPO's were required to consider in developing the plans and programs mandated under the legislation. TEA-21 (1998) consolidated these 16 planning factors into seven broad areas, which were slightly altered with the passage of SAFETEA-LU in 2005 with Transportation Security now a stand-alone factor and the factor relating to the environment expanded to promote consistency of the long-range transportation plan with planned growth and development. These eight planning factors appear in MAP-21. The following table shows which individual transportation planning tasks included in the MVMPO's Draft FFY 2016 UPWP address them:

<b>MAP-21 Planning Factors in the MVMPO Draft FFY 2016 UPWP</b>		
<b>MAP-21 Planning Factor</b>	<b>UPWP Task(s)</b>	<b>RTP Goals</b>
<b><i>(1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;</i></b>	Tasks 1.7, 2.4, 2.5 and 3.4	Promote Economic Vitality Transportation Equity
<b><i>(2) Increase the safety of the transportation system for motorized and nonmotorized users;</i></b>	Tasks 2.7, 2.8, 2.9, 3.5, 3.6 and 4.3	Increase Safety for All Modes Promote Environmental Sustainability
<b><i>(3) Increase the security of the transportation system for motorized and nonmotorized users;</i></b>	Tasks 2.7, 2.9, 3.5, 3.6 and 4.3	Promote Environmental Sustainability Promote Economic Vitality Transportation Equity
<b><i>(4) Increase the accessibility and mobility options available to people and for freight;</i></b>	Tasks 1.6, 1.7, 2.4, 2.5, 2.9, 2.10, 3.1 and 3.2	Create Multi-Modal System to Support Mode Choice Promote Economic Vitality
<b><i>(5) Protect and enhance the environment, promote energy conservation, and improve quality of life;</i></b>	Tasks 1.6, 2.7, 2.9, 3.1, 3.2, 3.3, 3.8, 3.9 and 4.3.	State of Good Repair Transportation Equity Promote Environmental Sustainability
<b><i>(6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;</i></b>	Tasks 1.1, 1.2, 2.5, 2.7, 2.10 and 3.2	Create Multi-Modal System to Support Mode Choice Promote Economic Vitality
<b><i>(7) Promote efficient system management and operation;</i></b>	Tasks 2.1, 2.2, 2.4, 2.6, 2.10, 3.3, 3.4, 3.7 and 4.1	State of Good Repair Promote Economic Vitality
<b><i>(8) Emphasize the preservation of the existing transportation system.</i></b>	Tasks 2.2, 2.10 and 4.3	State of Good Repair Environmental Sustainability

<b>Summary of Anticipated MVPC Funding Resources</b> <b>FFY 2016 (July 1, 2015 – June 30, 2016)</b>		
<u>Source - Non Transportation</u>	<u>Amount</u>	<u>% of Total</u>
Economic Development Administration (EDA)	\$100,000	3.6%
CIC Grant - CMMS	20,000	0.7%
EDA Revolving Loan Fund	20,000	0.7%
Eight Towns and the Great Marsh (Environmental Protection Agency/Mass. Coastal Zone Mgt.)	63,700	2.3%
Mass. Department of Housing and Community Development District LTA	106,480	3.9%
MEMA Hazard Mitigation	1,500	0.1%
U.S. Fish and Wildlife Service - NAWCA Grant	304,500	11.1%
National Wildlife Federation Sandy Grant	500,000	18.2%
Mayor's Coalition	20,000	0.7%
EPA Brownfields Revolving Loan Fund	543,785	19.8%
EPA Brownfields Assessment #4	15,500	0.6%
Local Technical Assistance	26,281	1.0%
Misc. GIS and Local Contracts	60,000	2.2%
<b>TOTAL (Non Transportation)</b>	<b>\$1,781,746</b>	<b>64.9%</b>
<u>Source - Transportation</u>		
FHWA/MassDOT-PL	\$715,285	26.1%
FTA/MVRTA (Section 5307)	100,000	3.6%
FTA/MVPC (Section 5303)	134,194	4.9%
Haverhill Safety	13,476	0.5%
<b>TOTAL (Transportation)</b>	<b>\$962,955</b>	<b>35.1%</b>
<b>MVPC TOTAL</b>	<b>\$2,744,701</b>	

Source: MVPC's FY 2016 Budget #1: July 1, 2015 – June 30, 2016 (Approved 2/19/15)

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### **Merrimack Valley Planning Commission Staff**

*(Number in parentheses represents the approximate percentage of staff person's time devoted to transportation planning)*

Dennis DiZoglio, Executive Director

Mary Kay Beninati, Senior Transportation Planner (100%)

Joseph Cosgrove, Environmental Program Manager (15%)

Jennifer Dunlap, Accountant

Todd Fontanella, Transportation Planner (90%)

Betsy Goodrich, Transportation Planner (100%)

Anthony Komornick, Transportation Program Manager (100%)

Steve Lopez, GIS Specialist (40%)

Nancy Lavalley, Administration

Dan Ovalle, Data Collection Specialist (100%)

Michael Parquette, Comprehensive Planning Manager (10%)

Peter Phippen, Environmental Planner (10%)

Kelsey Quinlan, GIS Specialist (10%)

James Terlizzi, Senior Transportation Planner (100%)

Jerrard Whitten, Environmental Planner/GIS Specialist (40%)

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**Merrimack Valley Planning Commission Transportation  
Studies, Analyses and Technical Assistance**

**Local Technical Assistance Projects**

<p>North Andover Downtown Parking Study (2015)  Newburyport Chap.40R Traffic Impacts Analysis (2015)  Green St./Merrimack St. Bike &amp; Ped. Assess. (2014)  Low St./Bashaw Way Intersection Analysis (2014)  Newbury Plum Island Traffic and Parking Study (2013)  Haverhill Consentino School Speed Zone Plan (2013)  Route 108/Rte 110 Intersection Alignment (FFY 2012)  Route 125 Pedestrian Crosswalk Analysis (FFY 2012)  Route 113 Traffic Impact Review (FFY 2012)  Parker St./Merrimack St. Intersect. Review (FFY 2011)  Haverhill Street Light Ident.and Mapping (FFY 2011)  Improving Pedest. Access to Central Plaza (FFY 2010)  Broadway/Lake St. Intersection in Haverhill (FFY 2010)</p>	<p>Analyze Traffic &amp; Safety Issues in Byfield (FFY 2010)  Prepare PNF for Rte.133 Project in Boxford (FFY 2010)  Willow Ave. Widening Review in Haverhill (FFY 2009)  Saratoga St. One-Way Study in Lawrence (FFY 2009)  Guard Rail Feasib. on Pelham St in Methuen (FY 2008)  Rt. 125/Cushing Ave. Intersect. Study, Haverhill (2008)  Bradstreet Property Trail Mapping, Rowley (2008)  Lawrence Five Corner Intersection Analysis (2007)  Merrimac Traffic Impact Study Review (2007)  Haverhill Lafayette Sq. Traffic Impact Review (2007)  West Newbury Four-Way Stop Sign Analysis (2006)  Storey Avenue Traffic Impacts, Newburyport (2007)  Lawrence Industrial Park Rail Siding (2007-2013)</p>
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**Transportation Studies**

<p>Park St./Lawrence St. RSA in Lawrence (2014)  Methuen Square Traffic Study (ongoing)  Haverhill Railroad Ave./River St./Moulton Way Study (ongoing)  Lawrence Project Development (2013)  I-495 Ramps/Mass. Ave. Intersect.Study, N. And. (2014)  Marston's Corner Intersection Study, Methuen (2013)  Haverhill St. Corridor Study , Methuen (2013)  M&amp;L Branch Trail Feasibility Study, Lawrence (2012/3)  Lafayette Square Safety Study, Haverhill (2012)  Rte 113/Rte 95 Interchange RSA, Nbprt. (2012/3)  Rte 213/Rte 28 Interchange RSA,, Methuen (2012/3)  Rte 1/Merrimack St. Intersect. RSA, Nbryprt. (2012/3)  Elm St./Rte 1 Intersection Study, Newbury (2012)  Broad St./Rte 495 Interchange Study, Merrimac (2012/3)  Route 28 Congestion Analysis, Methuen (2012)  Merrimack River Trail Reconnaissance Study (2011)  Milk St./Route 113 Intersection Study, Methuen (2011)  Georgetown Branch Rail Trail Feasibility Study (2011)  Andover St./Rte. 114 RSA, Lawrence (2011)  Water St./Broadway RSA, Lawrence (2011)</p>	<p>MVMPO 2012 Regional Transportation Plan (2011)  Winter St/White St. Intersect. Study, Haverhill (2010)  Georgetown Square Intersection Study (2010)  Route 1/Route 133 Intersection Study, Rowley (2010)  Merrimac St/Spofford St Study, Newburyport (2010)  Rte. 114 Corridor Study, Lawrence/N. Andover (2010)  Ames St./Haverhill St. Intersection Study (2009)  Main St. Corridor Study, Haverhill (2009)  Chickering Rd/Mass. Ave. North Andover (2009)  Elderly Transportation Plan Update (2009)  Route 125 Build Out Analysis, North Andover (2008)  Disabled Transportation Plan (2008)  MVMPO 2007 Regional Transportation Plan  Lowell Junction IJS, Andover (2006)  Rte. 1/March Rd. Intersection Study, Salisbury (2005)  Rte. 125/Merrimack Street Intersection Study (2005)  Route 93 Corridor Traffic Study (2005)  MVMPO 2003 Regional Transportation Plan  MVMPO Environmental Justice Study (2003)</p>
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**TASK 1.0 - MANAGEMENT AND SUPPORT OF THE 3C TRANSPORTATION PLANNING  
PROCESS**

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## **Task 1.1 - Program Management and Support**

### **Description**

Program Management and Support activities include tasks that are necessary to maintain the federally prescribed 3C transportation planning process in the Merrimack Valley region. These include administrative tasks associated with the preparation of transportation plans and programs (i.e. UPWP, TIP, and the RTP), coordination of transportation planning activities with other local, state and regional agencies, contract administration, and staff attendance of seminars and workshops. Also included is MVPC staff participation in ongoing transportation studies & analyses being undertaken in the region or in surrounding regions that might impact the Merrimack Valley.

### **Previous Work**

MVPC staff has prepared all necessary financial documents and progress reports for its PL and transit planning contracts with MassDOT and its transit planning contract with the Merrimack Valley Regional Transit Authority. MVPC also prepared newsletters and annual reports, and provided information to the press. This task also provides resources for MVPC staff to attend meetings of the Transportation Program Managers and to review major transportation programs and documents prepared by state, and federal agencies.

In recent years, the MVPC has increasingly used this task to participate in many transportation planning studies that are being conducted in adjacent regions or supporting groups associated with the implementation of major roadway, bridge or transit projects. Examples of transportation studies are New Hampshire DOT's Capitol Corridor Transit Alternatives Study, its Plaistow Commuter Rail Study, and its I-93 Transportation Demand Management Task Force. MVPC was a member of MassDOT's Methuen Rotary Advisory Committee for the Route 110/113 Rotary reconstruction project, the Advisory Committee for the development of the Draft EIS/EIR for the I-93: Lowell Junction Interchange project, and supports the Whittier Bridge Working Group, which is comprised of representatives from MassDOT and local officials from the communities of Amesbury, Newburyport and Salisbury.

At the local level, staff attends Haverhill Traffic and Safety Committee and the Newburyport Traffic and Safety Committee.

### **FFY 2016 Activities**

Each of the activities described below will be performed by the MVPC since this agency is designated as the MVMPO's transportation planning staff. A breakdown of Program Management and Support tasks is shown below:

### **Tasks**

- 1.1.1 *Review Federal and State Transportation Programs:* Includes staff reviews of federal and state transportation programs, guidelines, circulars and manuals. This includes such

documents as the Federal Transportation Authorization legislation, the Commonwealth's State Rail and Freight plans, weMove Massachusetts, GreenDOT Implementation Plan, Transportation Bond Bills, Beyond Boston Transit Study, and the MassDOT Highway Division's Capital Facilities Plan would also be performed under this task, as would Chapter 40, Section 54A reviews of development projects proposed for abandoned rail lines in the region. Staff attendance at workshops sponsored by MassDOT or USDOT would also be performed under this task.

- 1.1.2 *Coordination of Regional Transportation Planning Activities:* The MVMPO will coordinate all its transportation activities with related activities and programs developed by other agencies and authorities in adjacent regions such as the Rockingham Planning Commission in New Hampshire, Northern Middlesex Council of Governments, Metropolitan Area Planning Council, Nashua Regional Planning Commission, and Lowell Regional Transit Authority and the Merrimack Valley Regional Coordinating Council. Staff will also stay apprised of and activities being undertaken by the Merrimack Valley TMA in its efforts to relieve congestion in and around Greater Lawrence and the Lowell Junction area of Andover, respectively.
- 1.1.3 *Preparation of Newsletter Articles and 2015 Annual Report Articles:* Transportation staff will prepare articles for inclusion in Regional Review, the MVPC newsletter, which will be published quarterly during the period, and for the MVPC's 2015 Annual Report. This latter document will be prepared in the period from December 2015 through January 2016.
- 1.1.4 *Contract Administration:* Prepare time sheets, progress reports and billings for MVPC's three transportation planning contracts, and perform other contract administration activities necessary to the conduct of the 3C transportation planning process such as staff meetings.
- 1.1.5 *CMAQ Consultation Committee:* Under this task, MVPC staff will prepare CMAQ project descriptions and complete mandated Air Quality impact evaluations and attend meetings of the state's CMAQ Consultation Committee.
- 1.1.6 *Attend Meetings of MVPC and MassDOT Highway Department District 4 Staff:* MVPC transportation planning staff will prepare for and attend meetings with MassDOT District 4 personnel to discuss the status of roadway projects in the Valley, project programming issues, and other transportation-related topics.
- 1.1.7 *MVMPO Participation in Other Regional Studies/Analyses:* MVPC staff will also continue to attend meetings of the Tri-Community Planning Task Force, Tri-Town Project Coordinating and Participating Agency Group, the Whittier Bridge Project Working Group, and the Lawrence Area wide Brownfields Planning Grant.
- 1.1.8 *Attend Transportation Program Managers Meetings:* The Transportation Program Managers Group serves as a primary forum for the exchange of information between the Metropolitan Planning Organizations, MassDOT and USDOT. MVPC staff will be



represented at meetings of this group, which occur on roughly a monthly basis.

- 1.1.9 *MVMPO Participation on Community Committees*: MVMPO will participate on local traffic and safety committees, road committees, and other groups that have been created to address transportation issues in the Valley.

## Products/Schedule

- Task 1.1.2 - Coordination of Regional Transportation Planning Activities  
– Ongoing
- Task 1.1.3 - Preparation of Newsletter Articles - Ongoing
- Task 1.1.5 - CMAQ Consultation Committee - Ongoing
- Task 1.1.6 - Attend Meetings of MVPC and MassDOT Highway Department  
District 4 Staff - Ongoing
- Task 1.1.7 - MVMPO Participation in Other Regional Studies/Analyses  
- Ongoing
- Task 1.1.9 - MVMPO Participation on Community Committees - Ongoing

Funding for Task 1.1 Program Management and Support		
Source	Person Hours	Amount
FHWA	548	\$58,880
MassDOT	137	\$14,720
FTA Section 5303	223	\$23,552
FTA Section 5307	68	\$7,680
MVPC	73	\$7,808
TOTAL	1,049	\$112,640

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## **Task 1.2 - Public Participation Process**

### **Description**

An essential component of the federal transportation planning legislation requires that MPOs involve the public in all levels of the transportation planning process. The MVMPO's Public Participation Process is designed to ensure that key public agencies at all levels of government, private and nonprofit organizations MPO Stakeholders, and interested citizens are both kept apprised of the development of important MPO documents such as the Regional Transportation Plan, Transportation Improvement Program and the Unified Planning Work Program and provided with the fullest access to all the transportation planning milestones in the region.

Key participating groups in this process are the Merrimack Valley MPO Members, the MVMPO Working Group, MVMPO Transportation Committee and its Title VI Outreach Advisory Group, Merrimack Valley Planning Commission, and the Merrimack Valley Regional Transit Authority Advisory Board. However, MVPC-sponsored meetings of local elected officials, the Mayors and Managers Group and its subsidiary DPW Directors Subcommittee, regional planners, and area legislators are also important. Through these and the MVPC website, information concerning the status of transportation planning and construction projects as well as transit services in the region are presented and reviewed.

### **Previous Work**

With the passage of SAFETEA-LU, USDOT began to require that each MPO develop a Public Participation Plan (PPP) that would broaden the scope of the public outreach process and which identified a number of specific groups that must be included in the transportation planning process. The MVMPO created and adopted a regional Public Participation Plan in the summer of 2007, which was subsequently updated by the MPO in 2010.

Under the FFY 2015 UPWP, staff began preparing major revisions to the above document. Many of these are being made in response to guidance that the MVMPO has received from FHWA and MassDOT that is designed to more actively involve the region's Title VI Environmental Justice/Limited English Proficiency populations in the transportation planning process.

As called for in the current MVMPO PPP, MVPC staff prepared numerous public notices and press releases for local newspapers and boards announcing MVMPO meetings, MVMPO Working Group meetings, and Public Hearings to receive input on MVMPO documents. The MVMPO continued to expand the MVMPO's Stakeholder list, which forms the foundation of this process, and modified its electronic outreach procedures to provide more information that can be used in both measuring how well this form of communication is performing and to streamline the management of the Stakeholders List.

MVPC staff continued supporting its Mayor's and Managers Coalition as well as meetings of a subcommittee of that group, the DPW Directors. This group has and will continue to play a key role in the creation of the Merrimack Valley Stormwater Collaborative, a group formed through

funding provided through a Commonwealth Community Innovation Challenge Grant (see Task 3.8). Staff also continued to work with the DPW Directors in implementing a software package that can be used by local DPWs to track progress on work orders.

## **FFY 2016 Activities**

Staff will continue to support the implementation of the Public Participation Plan in the region and the tasks described below. In addition, MVPC will work to implement the other planning-related requirements contained in MAP-21 that apply to this task.

### **Tasks**

- 1.2.1 *Continued Analysis of the Implementation of the Public Participation Plan (PPP):* Staff will continue evaluating the effectiveness of specific PPP components; review PPP Best Practices information among MPOs in general and propose/adopt PPP modifications if required.
- 1.2.2 *Continued Monitoring of MVTC and Stakeholder Outreach Lists:* Additional groups and organizations will be added as warranted and non-participating parties will be removed upon their request.
- 1.2.3 *Implement Public Involvement Process:* Staff will prepare public notices, announcements, documents, presentations and educational tools to be circulated at meetings, posted on MVPC website / social media, or distributed by mail, newspapers or other media as outlined in the MVMPO's Public Participation Plan.
- 1.2.4 *Distribute Required Documents:* MVPC staff will distribute TIP, RTP, and UPWP documents as well as any amendments to these documents in a manner consistent with the MVMPO PPP.
- 1.2.5 *Host Meetings of Merrimack Valley Mayors and Managers Coalition and Area Legislators:* MVPC staff will host and/or attend these meetings to discuss important transportation issues. This task will also contain some staff time devoted to supporting the Mayors and Managers Coalition's DPW Directors Subcommittee.
- 1.2.6 *Merrimack Valley Transportation Committee/MVMPO Working Group:* Provide for and actively encourage public and private participation in the 3C planning process through the Merrimack Valley Transportation Committee (MVTC) and the MVMPO Working Group. Includes scheduling of meetings, preparation of agendas and meeting materials.
- 1.2.7 *Hold MVMPO Meetings:* MVPC staff will provide administrative and technical support to the MVMPO and host meetings of the organization. This task includes scheduling meetings, preparation and distribution of meeting agendas, minutes, and other materials.
- 1.2.8 *Monitor/Participate in MPO and Transportation Committee Meetings for Surrounding MPOs:* Under this task, MVPC staff will attend certain meetings of the Boston, Northern Middlesex, Rockingham and Nashua MPOs including policy and technical committee

meetings. Staff may also attend meetings of other MPOs within the Boston Urbanized Area (UZA), although it is anticipated that this will occur less frequently. Staff will also review the materials prepared by these MPOs to ensure the coordination of all transportation-planning activities. Along with Task 1.2.10 below, this task will address the federal requirement for interregional transportation planning coordination.

- 1.2.9 *Participate in Northern Boston UZA Meeting:* This group is comprised of transportation staff from the Boston, Northern Middlesex and Merrimack Valley MPOs and meets annually to discuss transportation matters (e.g. projects, data availability, etc.) that cross MPO boundaries.
- 1.2.10 *Adoption of New MOU's:* MVPC staff will complete the process of entering into an agreement with NHDOT, Rockingham MPO, and MassDOT as recommended in the MPO's 2013 USDOT Certification review. USDOT is recommending that this MOU be revised to include performance measurement criteria required in MAP-21.

## Products/Schedule

- Tasks 1.2.1–1.2.4 - Prepare public announcements; present and distribute documents – Ongoing
- Task 1.2.5 - Meetings with Chief Elected Officials and Legislators – Ongoing
- Task 1.2.6-7 - MVMPO & MVTC Meeting packets and Committee newsletters -- Ongoing
- Task 1.2.10 - New MVMPO MOUs as Recommended by USDOT – February 2016

Funding for Task 1.2 Public Participation Process		
Source	Person Hours	Amount
FHWA	397	\$42,608
MassDOT	99	\$10,652
FTA Section 5303	130	\$15,348
FTA Section 5307	0	\$0
MVPC	32	\$3,837
TOTAL	658	\$72,445

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## **Task 1.3 – Unified Planning Work Program (UPWP)**

### **Description**

The Unified Planning Work Program (UPWP) describes all transportation planning activities to be undertaken within the region in the coming federal fiscal year. Most of these activities will be conducted by MVPC transportation staff within that agency's role as the transportation staff for the MVMPO. However, this document must also include descriptions of significant transportation planning studies in the Valley that are to be undertaken by other agencies using federal transportation funds.

### **Previous Work**

MVPC staff produced draft and final versions of previous MVMPO UPWPs.

### **FFY 2016 Activities**

Under this task in the coming program year the MVPC, in accordance with responsibilities defined in the Memorandum of Understanding for the MVMPO, will prepare the FFY 2017 UPWP for the region. The MVPC will also amend the FFY 2016 document as needed to reflect changes that may occur during the course of the program year.

### **Tasks**

- 1.3.1 *Develop FFY 2017 Unified Planning Work Program:* The MVPC will develop the FFY 2017 UPWP for the region which describes all transportation planning activities anticipated to be undertaken in the next program year including, to the extent feasible, those state and locally funded activities which are to be conducted by the MVPC, National Transit, Inc. or other parties.
- 1.3.2 *Amend FFY 2016 UPWP: Performed as necessary.* Amendments to the UPWP shall follow the formal MPO endorsement process. Minor revisions such as changes to the existing level of effort or addition/deletion of tasks and procedures within the current contract/grant may be made as an administrative adjustment with the mutual consent of MassDOT and FHWA. An administrative adjustment will not require a formal MPO endorsement.

**Products/Schedule**

- Task 1.3.1            - Draft FFY 2017 UPWP - May/June 2016  
                             - Endorsed FFY 2017 UPWP - June/July 2016
- Task 1.3.2            - Amendments to FFY 2016 UPWP - As necessary

<b>Funding for Task 1.3 Unified Planning Work Program</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	100	\$11,184
MassDOT	25	\$2,796
FTA Section 5303	22	\$2,412
FTA Section 5307	0	\$0
MVPC	5	\$603
TOTAL	152	\$16,995



## **Task 1.4 - Transportation Improvement Program (TIP)**

### **Description**

The TIP serves as a multi-year document that lists and briefly describes all federally funded transportation projects that are programmed for implementation in the region. Any project that is to be implemented using federal funding must appear in this document and any project that is to be implemented in the coming fiscal year must appear in what is known as the Annual Element. In addition to this project listing, MPOs must demonstrate in the document that there is sufficient funding available to construct these projects and that the existing transportation infrastructure is being adequately maintained.

### **Previous Work**

MVPC staff worked in cooperation with MassDOT Highway Division District 4 and the Office of Transportation Planning to produce the Draft FFYs 2016-2019 TIP including the application of the Transportation Evaluation Criteria to projects being considered for inclusion in that document.

MVPC staff also continued to update its database of roadway and transit projects that was used to develop the MVMPO's FFY 2015-2018 TIP and is being used in developing the MVMPO's Draft FFY 2016-2019 TIP. Staff continued to conduct qualitative or quantitative assessments of each TIP project's Greenhouse Gas (GHG) Emissions.

The region's FFYs 2015-2018 TIP was developed using MassDOT's *GrantsPlus* transit project and grant management system, which is also being used in the development of the region's Draft FFY 2016-2019 TIP. The *GrantsPlus* system relies on the Regional Transit Authorities to provide MassDOT with the capital projects they propose to build over the next four fiscal years using Section 5307 federal funds and state matching funds. MassDOT's Rail and Transit Division then reviews these requests and provides the MPOs with a listing of projects that could be built given available state matching funds. This helps ensure that the transit project is fiscally constrained.

### **FFY 2016 Activities**

MassDOT and the other members of the MVMPO will continue to work cooperatively to develop a regional priority list of federal aid and non-federal aid transportation projects that will serve as the basis of the FFY 2017-2020 TIP.

MVPC will continue to complete GHG emissions evaluations for those roadway and bridge projects that appear in Appendix A and Appendix B of the TIP.

### **Tasks**

- 1.4.1. *Develop Four-year Program of Projects:* In developing the Draft FFY 2017-2020 TIP, staff will update the list of all transit, highway or air quality projects that are expected to require federal transportation funds for planning and engineering, construction or pur-

chase during the period. In addition to this list of federally-funded projects, the TIP will include:

- For informational purposes, all projects proposed to be funded with Federal funds other than from FHWA and FTA, and
- For informational purposes, all regionally significant projects proposed to be funded with Non-Federal funds. This four-year list of projects shall include the following information:
  - a. Project title;
  - b. Project description;
  - c. Project evaluation score based on MVMPO's application of Transportation Project Evaluation Criteria;
  - d. Project Type (i.e. Construction, Operating, or Maintenance);
  - e. Estimated total cost in the year that the project is to be advertised;
  - f. Amount of federal funds proposed to be obligated during each program year;
  - g. Identification of the intent to use Advance Construction method of funding, when approved;
  - h. Proposed source of funding (federal and non-federal);
  - i. Identification of the recipient/subrecipient and state and local agencies responsible for carrying out the project, and
  - j. Quantitative or Qualitative evaluation of each roadway and bridge project's GHG emissions.

Project descriptions shall be of sufficient detail to adequately describe the scope of the project and should match the descriptions shown on MassDOT's project information web page. In addition, the total costs of projects seeking federal funds in each program year shall be comparable to the anticipated level of federal funding expected to be available to the MVMPO.

Also, all project construction costs will be adjusted to reflect their anticipated levels in the fiscal year that they are programmed to be advertised. To accomplish this, baseline construction cost estimates will be increased by 4% per year until the fiscal year they are programmed.

- 1.4.2. *Preparation of MVMPO Region Draft 2017-2020 Transportation Improvement:* The following tasks and procedures will be performed by the MVPC transportation planning staff in developing the Draft FFY 2017-2020 TIP:

- Insure early involvement of local legislators, chief local officials, MVMPO Stakeholders and citizens through the Public Involvement Process (see Task 1.2);
- Provide technical assistance to municipalities and private interests in developing projects and priorities, and
- Work with the MassDOT Highway Division District 4 Project Engineer, MVRTA Administrator, MassDOT Rail and Transit Administrator, and the Office of Transportation Planning in developing project information.

The Draft FFY 2017-2020 TIP will also include sections on:

- a. The relationship of the TIP to the RTP;
- b. Funding categories and amounts of federal funds proposed to be obligated during each program year;
- c. Previously funded projects and programs, their status, and an explanation of any significant delays in the planned implementation of major projects. The region will specifically identify “investments in pedestrian walkways and bicycle transportation facilities” as required in MAP-21;
- d. The criteria and process for prioritizing projects;
- e. The Financial Plan that compares revenue needs to revenue sources for highway and transit programs;
- f. Evaluation of how the region is programming transportation funding for the purpose of maintaining the existing transportation network;
- g. Description of the transit funding provisions in MAP-21, and
- h. The GHG emissions associated with each project appearing in the FFY 2017-2020 elements of the document

1.4.3. *Endorsement of FFY 2017-2020 TIP:* After the completion of the required public review and comment as outlined in the region’s Public Participation Plan, the MVMPO will endorse the region’s FFY 2017-2020 TIP in late June/early July of 2016.

1.4.4. *Amendments to MVMPO’s FFY 2016-2019 TIP:* The MVMPO will endorse amendments to the region’s FFY 2016-2019 TIP as needed throughout FY 2016.

1.4.5. *Review Reports on Advertised Projects:* MassDOT provides quarterly reports to the Massachusetts Association of Regional Planning Agencies (MARPA) concerning the status of planned and advertised road and bridge projects. This information is usually disseminated and discussed at quarterly meetings of MassDOT staff, RPA Directors, and RPA Transportation Program Managers. Attendance of MVPC transportation staff at these meetings and the review of the information presented in these reports will be performed under this task.

- 1.4.6. *Project Evaluation Criteria:* As part of Chapter 46 of the Acts of 2013, the legislature created the Project Selection Advisory Council, which was charged with the responsibility of developing the uniform project selection criteria to be used in the development of a comprehensive state transportation plan. Preliminary project selection criteria have been developed by the Council and are now available for review and comment. The Council's final report to the Legislature is due to be submitted by June 30, 2015. MVPC staff will work with MVMPO members to integrate the Advisory Council's new criteria into its own transportation project evaluation process.
- 1.4.7. *Publish List of Projects For Which Federal Transportation Funds were Obligated in FFY 2015:* By January 1, 2016, the MVMPO will develop and make available to the public a list of all of the transportation projects that federal funds were obligated to in FFY 2015.
- 1.4.8. *Investigate Creation of Regional Bike Parking and ADA Ramp/Sidewalk Programs:* In many years, substantial amounts of MVMPO target CMAQ and TAP funds are not obligated in the region's TIP. Given the need to improve bicycle parking facilities in the region and improve sidewalks, it may be possible for the MVMPO to develop programs that could channel these funds to such projects. MVPC staff will work with District 4 staff and the Office of Transportation Planning to identify the type of projects that could be developed to make use of any available CMAQ and/or TAP target funding.

### ***Products/Schedule***

- |            |  |
|------------|--|
| Task 1.4.1 | - Develop four year program of projects – February – May 2016  |
| Task 1.4.2 | - Release notice of development of FFY 2017-2020 TIP<br>- February 2016  |
|            | - Release of Draft FFY 2017-2020 TIP – May/June 2016   |
| Task 1.4.3 | - Final FFY 2017-2020 TIP including a quantitative air quality analysis of regionally significant major construction projects<br>- June/ July 2016 |
| Task 1.4.4 | - Amendments to MVMPO's FFY 2016-2019 TIP – As needed  |
| Task 1.4.6 | - Revised MVMPO Transportation Project Evaluation Criteria<br>- October 2015   |
| Task 1.4.7 | - List of Federal Obligations for Transportation Projects in FFY 2015<br>- December 2015   |
| Task 1.4.8 | - Investigation of MVMPO Bike and Pedestrian Funding Programs<br>- December 2015   |

<b>Funding for Task 1.4 Transportation Improvement Program</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	250	\$25,440
MassDOT	63	\$6,360
FTA Section 5303	58	\$5,924
FTA Section 5307	0	\$0
MVPC	14	\$1,481
<b>TOTAL</b>	<b>385</b>	<b>\$39,205</b>

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## **Task 1.5 - Updating Transportation Web Pages**

### **Description**

The MVPC website transportation pages were developed to provide MVMPO stakeholders and the public with access to the latest information on the MVMPO transportation planning process.

MVMPO staff maintains a significant amount of transportation information at [www.mvpc.org](http://www.mvpc.org) detailing the region's '3C' transportation planning process including the Regional Transportation Plan, Unified Planning Work Program and Transportation Improvement Program. In addition specific analyses such as intersection, roadway segment and corridor transportation studies can be found at this site. Staff also posts upcoming meeting notices (MVMPO, MVTC/MVMPO Working Group, Trails Committees, etc.) and prepares a listing of the transportation projects undertaken in the previous federal fiscal year (FFY).

### **Previous Work**

The MVPC website contains a number of transportation pages and links including:

- *MVMPO Documents*
- *FFY 2016 Regional Transportation Plan*
- *Transportation Data Viewer*
- *Merrimack Valley Metropolitan Planning Organization*
- *Title VI/Nondiscrimination*
- *Border to Boston Trail*
- *Complete Streets*
- *Project Development Toolkit*
- *Project Spotlight*

In FFY 2015, MVPC modified its transportation pages to facilitate easier access to its Title VI/Nondiscrimination link. It also made greater use of its Facebook Transportation page in soliciting public input in the development of the MVMPO's FFY 2016 Regional Transportation Plan.

MVMPO documents such as draft and final versions of amendments to the region's TIP appear along with notices of MVMPO-related public meetings, the availability of federal and state transportation documents.

### **FFY 2016 Activities**

Under this task, MVPC transportation staff will continue to update and maintain the transportation web pages (including the new Facebook page) and will evaluate whether the site conforms to state and federal standards for accessibility.

## Tasks

- 1.5.1 *Update Transportation Web Pages of MVPC Website and Facebook Transportation Page:* MVMPO staff will continue to update and maintain the transportation content at [www.mvpc.org](http://www.mvpc.org) and the MVPC Facebook Transportation page.
- 1.5.2 *Review MVPC Website to Ensure it meets State and Federal Accessibility Standards;* MVPC will work with its state and federal partners to conduct a review of the accessibility of the MVPC's website in general and its transportation pages in particular.

## Products/Schedule

- Task 1.5.1 - Update Transportation Web Pages – Ongoing
- Task 1.5.2 - Website Accessibility Review – November 2015

Funding for Task 1.5 Updating Transportation Web Pages		
Source	Person Hours	Amount
FHWA	99	\$8,776
MassDOT	25	\$2,194
FTA Section 5303	50	\$5,640
FTA Section 5307	0	\$0
MVPC	12	\$1,410
TOTAL	186	\$18,020



## **Task 1.6 – Title VI/Environmental Justice/Limited English Proficiency Activities**

### **Description**

Title VI of the Civil Rights Act of 1964 ('Title VI') prohibits discrimination based upon race, color, and national origin. Specifically, 42 USC 2000d states that:

*"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."*

Other nondiscrimination statutes include the Section 162 (a) of the Federal-Aid Highway Act of 1973 (23 USC 324) (gender), the Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973/Americans with Disabilities Act of 1990.

In addition, Executive Orders #12898 ("*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*"), and #13166 ("*Improving Access To Services For Persons With Limited English Proficiency*") direct federal agencies to develop strategies to address disproportionately high and adverse human health or environmental effects of their programs on minority and low-income populations. USDOT has subsequently issued Title VI and Environmental Justice (EJ) Circulars to guide MPOs and other transportation stakeholders in implementing nondiscrimination policy and program responsibilities, most recently in October 2012.

The MVMPO's Nondiscrimination Program activities relate to its status as 1) a direct recipient of USDOT planning funds, and 2) through provision of technical assistance to the Merrimack Valley Regional Transit Authority or MVRTA (a FTA direct funding recipient). Accordingly, certain tasks contained in each MVMPO UPWP are also part of MVRTA documents prepared and submitted by the MVRTA each federal fiscal year (FFY).

The MVMPO performs this task to raise awareness and integration of Transportation Equity / Environmental Justice (TE/EJ) principles and needs in the MVMPO's transportation planning and programming activities as well as in the MVPC's overall Program work. As in previous years, staff will continue outreach efforts to minority, low-income, limited-English-proficiency, disabled, and elder populations. It accomplishes much of this work through its staff support to the MVRTA (see UPWP Tasks 3.1 and 3.2). For FFY 2016 and beyond, staff proposes to maintain efforts initiated in prior FFYs to integrate TE/EJ awareness through community outreach, specific analyses and reporting in its 3C process, a trend consistent among Federal, Commonwealth and MPO organizations in general.

### **Previous Work**

In FFY 2015 the MVMPO staff continued implementing Title VI/EJ/LEP monitoring and outreach activity improvements recommended at the MPO's April 2013 Certification Review. It also met with MassDOT's Office of Diversity and Civil Rights in Winter 2015 to review MVMPO progress

in achieving MassDOT-recommended FFY 2014 tasks and to receive MassDOT's FFY 2015 Title VI Work Plan. Staff will be submitting an FFY 2015 Title VI Annual Report to MassDOT in July 2015.

### **FFY 2016 Activities**

MVMPO staff proposes to implement its FFY 2016 Title VI/Nondiscrimination Work Plan by performing the following tasks:

#### **Tasks**

- 1.6.1 *Staff Training and Coordination with MassDOT and USDOT:* Staff will attend seminars, workshops, and other training sessions such as webinars sponsored by USDOT and/or MassDOT to improve the quality of the MVMPO's own Title VI/EJ/LEP monitoring procedures. Staff will continue coordinating with other Massachusetts MPOs to share non-discrimination best practices information, and will arrange for in-house trainings as requested by MassDOT.
- 1.6.2 *Monitoring Regional Protected Population Facts/Trends/MVMPO outreach and Inclusion Effectiveness:* For example, the MVMPO identifies low-income populations in its region as those households at or below 80% of regional median household income (AMI). The MVMPO staff reaffirmed its use of this standard in a March 2014 analysis it conducted in cooperation with MVPC staff. The staff's analysis included survey of other Massachusetts MPO standards as well as a variety of federal and Commonwealth-based analyses of poverty and low income populations. The staff will continue to monitor this standard's appropriateness in FFY 2016.
- 1.6.3 *Reviewing RTP and TIP Projects and Perform 'Benefits and Burdens' Analyses:* Staff will continue to prepare 'Benefits and Burdens' analyses to determine how individual projects or programs affect the region's minority, low-income, limited English-proficient, and other protected populations.
- 1.6.4 *Data Collection:* Staff will continue to update its socioeconomic data including data for the region's protected populations and will provide this information in its regular reporting cycles to MassDOT.
- 1.6.5 *Translating MVMPO Documents/Materials:* The MVMPO staff will continue to translate all or portions of its documents and will continue preparing process or document Fact Sheets in languages other than English. Staff will also continue to post materials in languages other than English on electronic media and hard copies at various locations. It will conduct this task in accordance with the MVMPO Public Participation Plan.
- 1.6.6 *Elevating Accessibility:* Staff will purchase or secure use of equipment and/or services that maintain and/or enhance MVMPO program accessibility. The Title VI Coordinator will also continue coordinating with the MVPC Office Administrator on MVPC facility, pol-

icy, and program accessibility. As requested by MassDOT, the Title VI Coordinator will arrange for in-house accessibility training.

- 1.6.7 *Interacting with MVMPO Region Constituent Groups.* Staff will continue this work, including preparation and circulation of information according to its Public Participation Plan in all MVMPO communities to increase potential for participation in the MVMPO planning process by protected populations including Title VI and EJ targeted populations as well as the disabled, elders, etc.
- 1.6.8 *Preparing Title VI Annual Report to MassDOT:* Staff will prepare this report at MassDOT's direction to summarize MVMPO Title VI/Nondiscrimination Program activities in the previous year.

## Products/Schedule

- |            |  |
|------------|--|
| Task 1.6.1 | - Staff training and coordination – Ongoing  |
| Task 1.6.3 | - Draft TIP Benefits and Burdens analyses – April/May 2016   |
| Task 1.6.4 | - Data collection and analysis - Ongoing   |
| Task 1.6.5 | - Translated materials (Ongoing throughout FFY 2016)   |
| Task 1.6.6 | - Revisions/updates to MVPC policies and programs, in-house accessibility training – projected for Fall 2015 |
| Task 1.6.8 | - Meetings/communications with Constituent Groups – Ongoing  |
| Task 1.6.9 | - Title VI Annual Report to MassDOT – July 2016  |

Funding for Task 1.6 Title VI / Environmental Justice / LEP		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	179	\$14,160
MassDOT	45	\$3,540
FTA Section 5303	76	\$6,880
FTA Section 5307	0	\$0
MVPC	19	\$1,720
TOTAL	319	\$26,300

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## **Task 1.7 - Regional Transportation Plan**

### **Description**

The MVMPO Regional Transportation Plan (RTP) is the most important element in the region's 3C planning process. It comprehensively examines the existing transportation network in the region, identifies those issues and problems that either require or will require improvement, and outlines possible courses of action designed to facilitate these improvements. All major forms of transportation in the region are considered and the document is developed so that it is consistent with the region's comprehensive, long-term land use plans as well as any social, economic, environmental, and energy conservation goals and objectives.

### **Previous Work**

The MVMPO prepared the FFY 2016 RTP under the FFY 2015 UPWP. This document is the first prepared after the enactment of MAP-21, which requires that the nation's transportation system be managed through the application of performance and outcome-based techniques and programs. The MVMPO's 2016 RTP includes new Goals and Strategies that reflect this performance based approach to managing the region's transportation network.

The FFY 2016 RTP is also notable for its incorporation of Smart Growth Development principles in forecasting the location and magnitude of population and employment growth in the region. Whereas previous MVMPO RTPs were developed based on the assumption that existing zoning would remain constant and continue to limit growth in certain densely developed areas, the new RTP assumes that communities will change their zoning to embrace Smart Growth for areas identified in the MVPCs Priority Growth Strategy, the region's land use plan.

### **FFY 2016 Activities**

In developing the socioeconomic projections used in FFY 2016 RTP, MVPC staff concluded that it should revise the process used to collect information on proposed, planned, permitted, and built developments in the region. Staff will complete development and implementation of this process under the FFY 2016 UPWP.

### **Tasks**

- 1.7.1 *Monitor Status of Local Development Projects and Proposals:* Staff will work with community planners, development directors and planning boards to identify readily accessible sources of information that can be monitored to track the progress of developments around the region. Staff will also reach out to MAPC to identify the source(s) of the additional specific information on developments that agency input into its land use forecasting model.

## Products/Schedule

Task 1.7.1                      - Monitor Status of Development Projects  
   - March 2015 - September 2016

Funding for Task 1.7 Regional Transportation Plan		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	22	\$4,160
MassDOT	6	\$1,040
FTA Section 5303	6	\$500
FTA Section 5307	0	\$0
MVPC	1	\$125
TOTAL	35	\$5,825

## **TASK 2.0 - DATA COLLECTION AND ANALYSIS ACTIVITIES**

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## **Task 2.1 - Traffic Monitoring Program**

### **Description**

Traffic volume count data is the most widely used and easily understood method to monitor and measure activity on our roadways. The MVPC has annually gathered traffic volume information on roadways throughout the region since 1983. These counts are taken for a number of important transportation planning purposes including the calculation of accident rates on links and at intersections, for use in MVPC corridor and intersection studies, in refining the regional traffic model, and in response to community requests for traffic counting information. These community requests often call for data on vehicle classification and vehicle speed to be collected. Counts are also taken at MassDOT-specified coverage locations to aid the state in obtaining data on vehicle miles traveled by road type. This information is submitted to the FHWA each year and is used, in part, to determine the amount of federal highway funding that will be made available to Massachusetts.

### **Previous Work**

Under the FFY 2015 UPWP, MVPC completed approximately 100 traffic counts. Many of these counts were taken at locations needed to better calibrate the regional traffic model.

MVPC has incorporated its traffic counting database into its website to provide the public with an improved method of accessing traffic count information. This is done through the MVPC's *Transportation Viewer*. The Viewer allows public to access traffic count data that has been collected by the MVPC over the years, locate the count locations using Google Maps and view aerial and ground level images of the count station using Pictometry and Google Earth, respectively. At the same time, MVPC continues to produce Community Traffic Counting reports that are distributed to local officials.

Since 2013, MassDOT has been contracting with Midwestern Software Solutions (MS2) to manage and administer its traffic data library rather than handling these functions itself. As part of this new arrangement MVPC staff has been reporting traffic counting data to MS2 and this process took place in FFY 2015.

### **FFY 2016 Activities**

Under this year's UPWP, MVPC again anticipates conducting approximately 110 traffic counts.

### **Tasks**

- 2.1.1 *Conduct MVPC Counts:* Conduct counts throughout the region in order to refine and update the traffic database with emphasis on those locations added as a result of adding new links to the traffic model. The MVPC plans to conduct 60 counts for these purposes in FY 2016.
- 2.1.2 *Conduct MassDOT Coverage Counts:* Take additional counts at MassDOT coverage count locations on undivided highways in the region. The MVPC will conduct 15 such

counts this year for MassDOT to assist in their efforts to estimate the number of vehicle miles traveled on various classes of roadways in the Commonwealth. MassDOT will be submitting this information to FHWA and it will be one of the data sources used to determine the state's highway funding allocation.

- 2.1.3 *Community Requests:* Member communities often request traffic counting information (vehicle classification, volume, or speed counts) at specific locations in anticipation of future developments, to address citizen concerns, etc. The MVPC anticipates conducting 10-15 of these counts under this UPWP.
- 2.1.4 *Count Library:* Maintain a library of traffic counts to be made available to the public. Staff annually updates its library of volume counts by including new information collected by MVPC, MassDOT, and by consultants as part of any traffic studies conducted in the Valley.
- 2.1.5 *Traffic Monitoring System:* Each year, MVPC conducts traffic volume counts at 25 locations in an effort to measure changes in traffic levels. This data, along with volume data collected by MassDOT at the permanent count stations in the region, serves to quantify regional volume growth factors.
- 2.1.6 *Data Submittal:* All counts taken by the MVPC in FFY 2016 will be uploaded directly to the Midwestern Software Solutions (<http://www.ms2soft.com/>) website.
- 2.1.7 *Community Reports:* Prepare and distribute reports summarizing the traffic counting activities for each community in the region. Paper copies of these reports will be distributed to the chief elected officials, MVPC Commissioners and DPW Directors of each community. Electronic versions of the reports will be emailed to other local officials.
- 2.1.8 *Bicycle and Pedestrian Travel Data:* Staff will collect bicycle and pedestrian counts along key on-road and off-road facilities in the Valley and at locations previously counted as part of MVPC intersection/corridor studies and mine the data contained in such studies prepared by consultants to support the development of a bicycle/pedestrian travel database.

## Products/Schedule

- Tasks 2.1.1- 2.1.3 - Conduct traffic volume, classification counts - October 2015 – November/December 2015; April 2016 – September 2016
- Task 2.1.4 - Update MVPC Count Library – December 2015 - February 2016
- Task 2.1.6 - Submittal of Data to MS2 website  
- December 2015 - February 2016
- Task 2.1.7 - Community reports summarizing 2015 regional traffic counting activities -- February - April 2016
- Task 2.1.8 - Ongoing

Funding for Task 2.1 Traffic Monitoring Program		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	802	\$52,784
MassDOT	201	\$13,196
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	1,003	\$65,980

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## **Task 2.2 – Regional Pavement Management Program**

### **Description**

Pavement management programs are designed to provide officials with a comprehensive tool to both evaluate the condition of their roadways and cost-effectively program roadway improvement projects. These programs have proven to be persuasive and effective tools in educating the public on road maintenance issues and obtaining funding necessary to support a comprehensive road maintenance program.

In recent years, many communities have expanded their pavement management programs to include other community-owned infrastructure usually found in the road right of way. These typically include water and sewer lines, streetlights, fire hydrants, storm drains and, in some cases, even electric boxes.

### **Previous Work**

During FFY 2015, MVPC collected information on the condition of pavement on federal aid arterial and collector roadways in the region in an effort to identify the level of funding needed to maintain the quality of these facilities over the next 25 years. This analysis, which was included in the MVMPO's FY 2016 RTP, showed that \$195 million in roadway resurfacing/reconstruction projects would be needed over the next 25 years to maintain the non-interstate federal-aid roadways in the Valley at 2015 levels.

Also in FFY 2015, MVPC assisted the City of Haverhill in updating its pavement management program and expanding it to also consider the condition of all sidewalks.

### **FFY 2016 Activities**

While the MVMPOs' efforts in FFY 2015 were focused on collecting road surface condition data for all non-limited access federal aid roadways in the region for use in the RTP, more attention will be given in FFY 2016 to distributing the pavement condition information to our communities. And, as has been the case for many years, MVPC will continue to work with communities to develop local pavement management programs.

### **Tasks**

- 2.2.1 *Community Assistance:* Continue to assist communities in the region seeking to establish pavement management programs. This assistance will consist of technical support and, if necessary, data collection.
- 2.2.2 *Distribute Pavement Condition Information:* The pavement condition information gathered by MVPC staff in 2015 will be provided to community DPW Directors to assist them in the maintenance of their locally maintained federal aid roadways.
- 2.2.3 *Attend Meetings of the Pavement Management Users Group:* Staff will attend meetings of the Pavement Management Users Group.

## Products/Schedule

- Task 2.2.1 - Provide assistance to interested communities in developing pavement management systems - Ongoing
- Task 2.2.2 - Distribute pavement condition data collected in 2015 to DPW Directors- November 2015
- Task 2.2.3 - Attend meetings of Pavement Management Users Group – Ongoing

Funding for Task 2.2 Pavement Management Studies		
Source	Person Hours	Amount
FHWA	124	\$12,160
MassDOT	31	\$3,040
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	155	\$15,200

## **Task 2.3 - Geographic Information Systems**

### **Description**

The MVPC makes extensive use of its Geographic Information Systems (GIS) in all phases of its comprehensive planning program. This is especially true of its transportation planning activities where virtually all map and geographical information used in its transportation planning studies and analyses is now produced and transmitted in digital format. Consequently, it is imperative that MVPC and all RPAs in the Commonwealth continue to have state of the art GIS programs in place to support their own planning studies and analyses and to provide technical assistance to their constituent communities.

### **Previous Work**

Under recent UPWPs, MVPC GIS and transportation staff worked cooperatively on a number of transportation-related issues, which have resulted in the creation of the following:

- *Traffic Viewer* for the MVPC website, which allows the public to access the MVPC's traffic counting and crash databases;
- A process to develop intersection and roadway improvement plans in GIS-compatible formats;
- GIS-based tool to assist staff in assigning locations to MassDOT crash reports
- Mapping tool that allows MVPC Transportation Staff to directly access and modify data contained in the Agency's GIS transportation databases;
- Methodology for identifying the location of sidewalks in the region using various aerial imagery;
- Application that integrates the collection of pavement condition data into both CarteGraph and MVPC's GIS Databases;
- Maps that were used in the development of the MVMPO's FFY 2016 Regional Transportation Plan and its FFYs 2015-2018 TIP and Draft FFYs 2016-2019 TIP; and the MVPC's Title VI/Environmental Justice/Limited English Proficiency analyses;
- MVRTA route and system maps and updates;
- Updated digital aerial imagery used in regional transportation studies;
- Methodology to identify location of sidewalks using aerial imagery and MassDOT Road Inventory File data, and
- Mapping location of stormwater outfall pipes along public roadways.

### **FFY 2016 Activities**

MVPC staff will again be assisting local communities in managing their digital aerial photography databases. This work will include offering additional workshops intended to familiarize new

staff persons from participating cities and towns with the use of the Pictometry imagery and software as well as to answer the questions of persons who are working with the product.

MVPC will continue to review any new road centerline files or Road Inventory Files developed by MassDOT and will continue using its GIS in geocoding newly accepted roadways that have been submitted to the state for inclusion in the RIF.

GIS staff will also continue to update the region's on-road and off-road trail maps based on geo-referenced data and information received from the communities.

## **Tasks**

- 2.3.1 *Maintain Transportation Database:* MVPC will continue to upgrade its highway planning and transit planning data layers for its GIS. MVPC will continue to work closely with MassDOT's Office of Transportation Planning, its Highway Division, MVRTA, MassGIS, and other public and private agencies to incorporate any information they may have into our transportation database.
- 2.3.2 *Monitor Status of Road Inventory Line File Updates:* Staff will continue to monitor and evaluate MassDOT's progress in developing roadway line files that match up with available orthophotographs.
- 2.3.3 *Attend Regional Data Center and State User Group Meetings:* Staff will participate in preparing for Regional Data Center meetings and will attend meetings of the MassGIS User Group.
- 2.3.4 *Pictometry Data and Software Technical Support:* MVPC staff will continue to assist staff from participating member communities in managing their Pictometry digital aerial image libraries and in the use of the Electronic Field Study software that is used to access and interpret the digital image database.
- 2.3.5 *Pictometry Workshops:* MVPC staff will hold workshops for local officials on how to use both the Electronic Field Study software to access and manage the community and neighborhood level imagery provided through Pictometry.
- 2.3.6 *MVRTA Bus Route Data Layer:* Any changes in the structure of the MVRTA's fixed route system will need to be reflected in a revised bus route data layer. GIS staff will complete any such revisions under this year's UPWP.
- 2.3.7 *Maintain Trails Database:* Under previous UPWPs, MVPC staff developed a series of community off-road trail maps that shows the locations of key trails on publicly accessible land. Working with local trails groups and enthusiasts, MVPC will continue to add new trails to these maps and modify maps of existing trails to reflect changes/improvements that may have been made. Similarly, maps showing the locations of new bike lanes, recently opened bicycle and pedestrian trails will also be prepared.



- 2.3.8 *Maintain/Update Traffic Counting Viewer:* GIS staff will develop a public facing web viewer to facilitate public engagement and outreach in the transportation planning process. RTP and TIP projects along with Census demographic data will be displayed along with other data including traffic count locations and volumes as well as trail routes (on road and off road). Data in the viewer will be accessible to the public and interactive for mapping and analytical purposes.
- 2.3.9 GIS staff will update the MVPC's Traffic Count Viewer with traffic count data collected in FFY 2016.
- 2.3.10 *Create and Expand Database of Sidewalks in the MVMPO Region:* One of the performance measures used in the MVMPO's FFY 2016 RTP is based on the number of miles and condition of sidewalks in the Merrimack Valley region. In FFY 2015, MVPC GIS staff developed a methodology for identifying the location of sidewalks using aerial photography and information on residential and commercial developments that have been constructed in the region in recent years. This information supplements the sidewalk information that is contained in MassDOT's Road Inventory File. As noted in Task 2.7.6, MVPC staff will be using this methodology to begin developing the updated sidewalk database that will be needed to apply this FFY 2016 RTP Performance Measure.

## Products/Schedule

Task 2.3.2	- Road Inventory File Updates - Ongoing
Task 2.3.7	- New and Revised Trails Maps – Ongoing
Task 2.3.8	- Maintain Traffic Counting Viewer - Ongoing
Task 2.3.9	- Creation of Sidewalk database – July 2016

Funding for Task 2.3 Geographic Information Systems		
Source	Person Hours	Amount
FHWA	837	\$72,460
MassDOT	209	\$18,115
FTA Section 5303	168	\$12,980
FTA Section 5307	0	\$0
MVPC	42	\$3,245
TOTAL	1,256	\$106,800

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## **Task 2.4 - Congestion Management Process**

### **Description**

The Intermodal Surface Transportation and Efficiency Act of 1991 (ISTEA) created Transportation Management Areas (TMA's) in those urbanized areas with populations over 200,000 persons. Within these areas, MPOs were given the primary responsibility to develop and implement a Congestion Management System (now Congestion Management Process). This requirement was slightly modified in SAFETEA-LU, but its general intent remains the same under MAP-21. Significantly, MAP-21 did officially set forth the requirement that an MPO's Congestion Management Process include measureable Goals and Objectives that could be tracked through the use of performance measures.

### **Previous Work**

The MVMPO's current CMP relies on the regional traffic model and existing traffic and transit usage data to identify congested highway, transit, and park-and-ride facilities in the Valley. MVPC staff also employs staff knowledge of the region, the results of traffic studies/reports to identify congested roadways and intersections while ridership data from the MBTA and the MVRTA is used to identify congested transit services/facilities. Additional field data is then collected to confirm and quantify congestion at those locations. From here, specific recommendations are proposed to solve some of these congestion problems. Such recommendations often include a call for a transportation study of the problem. In such cases, the study is included in the region's UPWP. The I-93 Corridor Study, I-495 Corridor Study, and Route 114 Corridor Study were all undertaken or initiated largely based on the findings and recommendations generated by the CMP.

Under the FFY 2015 UPWP, staff continued to analyze data that shows travel times on the NHS roadways in the Valley and began to incorporate this information into the CMP.

### **FFY 2016 Activities**

Much of the effort needed to develop CMP Goals, Measures and Targets will be accomplished under Task 2.10. Staff will, however continue to collect information included under the current CMP such as turning movement counts at congested intersections .

### **Tasks**

- 2.4.1 *Data collection:* MVPC staff will continue to monitor usage at park and ride lots throughout the region, review ridership information on congested transit routes/services, and collect turning movement counts at congested intersections.
- 2.4.2 *Congestion Management Process:* Coupled with the work to be performed under Task 2.10.3, staff will continue the process of integrating travel time data and analyses into the CMP report.

## Products/Schedule

- Task 2.4.1                - Data Collection – Ongoing
- Task 2.4.2                - Update CMS Report – February 2016

<b>Funding for Task 2.4 Congestion Management Processes</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	130	\$12,880
MassDOT	33	\$3,220
FTA Section 5303	18	\$1,560
FTA Section 5307	0	\$0
MVPC	4	\$390
<b>TOTAL</b>	<b>185</b>	<b>\$18,050</b>

## **Task 2.5 - Intermodal Connections with National Highway System / Freight Planning**

### **Description**

With its three interstate highways and other NHS roadways such as Route 213, the Merrimack Valley region offers a number of existing and potential intermodal connection opportunities. The region is also served by three rail lines, one of which provides freight rail access to local businesses (Lawrence Industrial Park Spur) and one line that carries a substantial amount of interstate freight as well as passenger service (Haverhill Commuter Line). A third line currently supports commuter rail service between Newburyport and North Station. Existing intermodal facilities include park and ride lots for commuter bus, commuter rail, and transit services as well as a number of trucking terminals.

### **Previous Work**

In FFY 2011, MassDOT completed construction of the expansion of the Newburyport Park and Ride Lot, which is located at the interchange of Route 113 and Interstate 95. MassDOT also completed work on the expansion of the Dascomb Road Park and Ride Lot, which is located adjacent to Interstate 93 in Andover. This project doubled the capacity of this lot and included the construction of numerous amenities that were either substandard or lacking at the old facility.

In FFY 2012, MVPC completed an analysis of the condition and usage of the intermodal facilities in the region with a focus on the park and ride facilities and transit stations located on or near NHS roadways. MVPC also assessed the adequacy of the connections to NHS roadways from truck freight terminals in the region. This analysis considered such factors as the physical condition of the facilities and whether there was peak period congestion on the roadways that connect them to the NHS system. The study also makes recommendations for addressing any of the deficiencies identified.

In FFY 2015, MVPC staff held discussions with the operator of the Newburyport Park and Ride Lot who is interested in expanding the capacity of that lot or creating a new park and ride lot along the I-95 Corridor in Greater Newburyport.

### **FFY 2016 Activities**

For the FFY 2016 UPWP, MVPC will undertake the following task in support of improving intermodal connections in the Valley:

### **Tasks**

- 2.5.1 *Development of NHS Projects:* Based on the recommendations contained in the MVPC's NHS Facilities Inventory, MVPC will work with its communities and MassDOT to develop improvement projects that will improve access between key transportation facilities and the region's NHS roadway network.
- 2.5.2 *Regional Park and Ride Lot Study:* Given the level of demand at the Newburyport Park and Ride Lot and the heavy usage it receives from residents of New Hampshire and

Maine and at Dascomb Road in Andover in the I-93 Corridor, MassDOT has requested that MVPC evaluate existing and long-term demand for all park and ride lots in the Merrimack Valley. Staff will work cooperatively with the Rockingham MPO and MassDOT's Rail and Transit Division in performing this analysis as well as with transit operators. In addition to reviewing the demand for park and ride lot capacity, this analysis will examine such options as facility ownership/operation, parking charges, potential sites for new lots, expansion options for existing facilities, and issues that are affecting demand at the existing facilities.

## Products/Schedule

- Task 2.5.1 - Development of NHS Projects – Ongoing
- Task 2.5.2 - Regional Park and Ride Lot Study– December 2015

Funding for Task 2.5 Intermodal Connections with NHS		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	120	\$11,416
MassDOT	30	\$2,854
FTA Section 5303	17	\$1,660
FTA Section 5307	0	\$0
MVPC	4	\$415
TOTAL	171	\$16,345

## **Task 2.6 - Regional Transportation Model**

### **Description**

Regional transportation simulation models play a prominent role in the 3C transportation planning process. They are the primary tools used to estimate the traffic impacts that will be generated by projected economic and population growth in the region, an important component of the Regional Transportation Plan. In the MVMPO region, the regional traffic model also plays a critical role in the screening process to identify congested transportation facilities as part of the Congestion Management Process.

MVPC uses the TransCAD transportation modeling software package, as do virtually all of the MPOs in the Commonwealth. The most recent version of the MVMPO's regional traffic simulation model currently consists of over 3,000 roadway links, over 375 internal traffic analysis zones, and 43 external zones that link the region with neighboring areas of Massachusetts and New Hampshire. The number of zones will continue to grow over the years as the MVPC completes more regional traffic studies, which generally require the creation of smaller traffic zones to achieve the desired level of accuracy needed to complete project-level link and intersection analyses.

### **Previous Work**

Under previous UPWPs, staff developed a new 2010 baseline network based on the results from the 2010 US Census and continued to calibrate and refine its model by adding traffic analysis zones.

### **FFY 2016 Activities**

Detailed employment data at place of work may be released by the Massachusetts Executive Office of Labor and Workforce Development sometime in FFY 2016. This information will be incorporated into the model as soon as it becomes available.

In addition, MVPC will continue the task of creating smaller, Census block-based zones in those parts of the Valley where block groups are too large to allow for reasonable assignment of traffic to the network. In most cases, such zones are in the more rural areas in the eastern part of the region where there is little or no employment.

### **Tasks**

- 2.6.1 *Statewide Travel Survey:* Staff will continue to modify the base year model using the results of data for the Merrimack Valley region obtained from the 2010-2011 Statewide Travel Survey.
- 2.6.2 *Model Calibration and Refinement:* Staff will continue to perform tasks as part of the model calibration and refinement process. The most important task in this regard will be the refinement of the model network as needed, through the creation of additional TAZs. Staff will also collect turning movement counts at selected intersections to assess how

well the model is reflecting actual travel patterns and will continue to integrate ATR count data into the model

- 2.6.3 *Model Coordination:* Planning areas surrounding the MVMPO region have also developed transportation simulation models. Traffic zone data and/or volume data from roadways entering the region will be incorporated into the MVPC regional traffic model, as necessary.
- 2.6.4 *Update Employment Shown in Model:* Should more detailed place of employment data become available in FFY 2016, staff will compare the employment levels/locations currently shown in the model with the new data.

## Products/Schedule

Task 2.6.2                      - Model Calibration and Refinement - Ongoing

Funding for Task 2.6 Regional Transportation Model		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	188	\$16,920
MassDOT	47	\$4,230
FTA Section 5303	22	\$2,040
FTA Section 5307	0	\$0
MVPC	5	\$510
TOTAL	262	\$23,700



## **Task 2.7 -- Bicycle/Pedestrian/Water Trails Planning**

### **Description**

Interest in creating a non-motorized off-road and on-road network has been growing in the region to the point where nearly every community in the Valley has a multi-use trail project either in the planning or development stage. The 2009 ribbon cutting for the Haverhill Riverwalk and the 2010 ribbon cutting of the Salisbury Ghost Trail and Newburyport Rail Trail added to the list of trails and were the culmination of over 10 years of effort to build these facilities. This effort has continued in recent years and the region is about to see the opening of two new trails (Bradford Rail Trail in Haverhill, Clipper City Rail Trail in Newburyport) and the expansion of an existing trail (Phase I of the Powwow Riverwalk in Amesbury).

Each of the above facilities was funded for design and/or construction through the MVMPO as were the Powow Riverwalk in Amesbury and a section of the Haverhill Riverwalk. The MVMPO will continue to be an active partner with MassDOT and our member communities to continue expanding this bicycle and pedestrian trail network.

### **Previous Work**

In 2006, with a Recreational Trail Program grant, MVPC staff worked with member communities to develop off-road trail maps. These maps can be found on the MVPC web site. This work continued over the past few years with GIS work to help Haverhill and Georgetown develop off-road trail guidebooks. This commitment to assisting communities in mapping such trails has carried on over the years and will continue under the FFY 2016 UPWP.

During FFY 2010, in an effort to help our member communities access High Priority Project funding for the Border to Boston Trail, MVPC staff, in partnership with MassDOT, created and managed a competitive funding program. The communities successfully came together to propose one project to develop 100% design of the remaining corridor in the MVPC region for the roughly \$718,000 plus local match.

In FFY 2010, MVPC received a Recreational Trails Grant from the Massachusetts Department of Conservation and Recreation and partnered with the Essex National Heritage Commission and the Northern Middlesex Council of Governments to examine and map a possible route for the Merrimack River Trail. The Merrimack River Trail Reconnaissance Plan was completed in FFY 2012 and helped to redefine the trail's route and refocused local officials' efforts to implement the sections of the facility running through their communities. Also in 2012, MVPC conducted a trail feasibility study of the Old Georgetown Railroad right-of-way to connect the Bradford Rail-Trail to the Border to Boston Trail in Georgetown, and a feasibility study for development of a shared use trail on the Manchester and Lawrence (M&L Branch of the former B&MRR in Lawrence).

In FFY 2014, MVPC prepared the Merrimack Valley Active Transportation Plan a document intended to both guide the further development of the bicycle and pedestrian trail network in the

Valley and assist communities in improving the condition and safety of their bicycle and pedestrian facilities.

In FFY 2015, MVPC continued to work in cooperation with MassDOT and the Haverhill Police Department to implement an innovative program that will track the behaviors of motorists, bicyclists and pedestrians. The results from this program and those from elsewhere in the state will be used to develop future outreach programs that are intended to promote bicycle and pedestrian transportation.

## **FFY 2016 Activities**

MVPC staff will continue to provide assistance to the Border to Boston communities to develop the trail. Additionally, staff will work with communities in their efforts to develop both on- and off-road bicycle and pedestrian facilities and connections.

The largest task to be undertaken in FFY 2016 will be the implementation of the recommendations contained in the Merrimack Valley Active Transportation Plan.

## **Tasks**

- 2.7.1 *Program Review:* MVPC staff will continue to review any local, regional, state and national policies/reports as they pertain to multi-use, pedestrian, bicycle, and equestrian trails.
- 2.7.2 *Provide Support to the Development of the Border to Boston Trail:* MVPC will continue to work with local trails groups and MassDOT in support of the effort to complete 25% and 100% design plans for the remaining portions of the Border to Boston Multiuse Trail.
- 2.7.3 *Technical Assistance to Communities for Trails in Development:* MVPC will provide technical assistance on other off-road trail projects including the Georgetown Branch trail, extension of the Bradford Rail Trail, Methuen Rail Trail, Merrimack River Trail, Shawsheen River Trail and Manchester & Lawrence Branch project in Lawrence. It will also encourage communities to undertake activities that support the development of projects that appear on the Bay State Greenway.
- 2.7.4 *Attend Meetings of the Coastal Trail Coalition and Other Local Bicycle, Pedestrian and Water Trail Groups:* MVPC staff will attend meetings of the Coastal Trails Coalition, Haverhill Trails Committee and other local and/or regional groups in an effort to foster coordination between the various bicycle and pedestrian planning efforts across the region and to provide technical assistance and advice to groups and organizations as they seek to implement improvement projects.
- 2.7.5 *Implementation of Recommendations Contained in Active Transportation Plan:* This plan identified a network of regional and local bicycle and pedestrian facilities that will serve the citizens of the region. It also identified areas that were experiencing a high number of bicycle and pedestrian crashes. Staff will provide technical assistance to lo-

cal officials in developing the trail and pedestrian facilities recommended in the Plan and correcting those parts of the network that are experiencing safety problems.

- 2.7.6 *Promote Safer Bicycle and Pedestrian Transportation:* MVPC will continue to work with communities to examine bicycle and pedestrian safety concerns and identify possible improvements (see Haverhill Police Department tracking program described above). While infrastructure is being built, it must go hand-in-hand with a safety education program. Staff will assess local bike education programs/marketing efforts and provide recommendations for how communities and the region can improve bicycle safety.

## Products/Schedule

- Task 2.7.5 - Implementation of Recommendations Contained in Merrimack Valley Bicycle and Pedestrian Plan – Ongoing

Funding for Task 2.7 Bicycle/Pedestrian/Water Trails Planning		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	229	\$21,120
MassDOT	57	\$5,280
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>286</b>	<b>\$26,400</b>

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## **Task 2.8 - Safety Monitoring System**

### **Description**

This task is designed to provide the MVMPO with a comprehensive planning analysis tool that identifies potential 'hot spot' safety problem areas on the transportation network. Federal transportation planning regulations include a requirement that metropolitan transportation plans should maximize the safety and mobility of people and goods. The importance of USDOT's emphasis on safety may be found in the fact that funding for the Highway Safety Improvement Program has grown substantially under MAP-21. This program provides federal funding for safety-oriented projects that support the goals and objectives of a state's Highway Safety Improvement Program.

Data prepared under this task will also be needed by the MVRTA to incorporate into its Bus/Van operator training. This will assist in increasing awareness for dealing with high crash locations.

### **Previous Work**

Under last year's UPWP, MVPC acquired crash data from MassDOT for the year 2010, which was used in reviewing safety conditions at a number of intersections under study. Staff also participated in Road Safety Audits that were conducted at the Park Street/Lawrence Street intersection in Lawrence, the Storey Avenue/Low Street /Woodman Way intersection in Newburyport, and the I-495/Route 114 Interchange, also in Lawrence.

### **FFY 2016 Activities**

MVPC will continue to assign crashes to their proper location within the MVPC's crash database. Much of this work will be accomplished using the MassDOT crash data summaries and geospatial information provided through our GIS. Staff will also assign geospatial coordinates to crash summaries where staff feels that enough information is contained in the summary (often placed in the wrong field) data that has been provided by MassDOT. Finally, staff will continue efforts to develop crash rates for intersections in the Valley where large numbers of crashes have taken place. This information is necessary to allow the MVMPO to identify which locations pose a greater crash risk to the public and is needed in developing projects to be funded in whole or in part under the HSIP funding earmark.

### **Tasks**

- 2.8.1 *Obtain Most Recent MassDOT and Selected Local Police Crash Data:* Staff believes that crash data from 2013 will be available late in July 2015 and facilitate creation of a three-year analysis period of 2011-2013.
- 2.8.2 *Edit MassDOT Crash Data:* MassDOT crash data is reviewed and edited by MVPC so that crashes not assigned GPS coordinates, but with sufficient supporting information to identify where the crash took place, can be given coordinates and thereby be effectively added to the crash database.

- 2.8.3 *Update Estimated Intersection Crash Rates:* Staff will refine the ADT volumes for local roadways that intersect the federal road system as well the ADTs for roadway segments on the federal aid system.
- 2.8.4 *Review State's Crash Cluster List:* MassDOT prepares a listing of its top crash locations. This list considers a number of factors such as severity of accidents, but does not consider accident rates. Nevertheless, this list provides valuable information on crash locations across the Commonwealth and will be reviewed by MVPC staff when it is released.
- 2.8.5 *Assist in Implementing the Recommendations of the Strategic Highway Safety Plan:* MVPC staff will continue to work with MassDOT to implement the recommendations contained in the Massachusetts Strategic Highway Safety Plan. This would include development of projects that would reduce the number of lane departure crashes in the region along with efforts to develop projects to address safety problems at high-crash locations,
- 2.8.6 *Participation in Road Safety Audits:* Staff will participate in the Road Safety Audits undertaken in the region in FFY 2016.

## Products/Schedule

- Task 2.8.2 - Edit MassDOT Crash Data – May – July 2016
- Task 2.8.3 - Develop Revised Intersection Crash Rates – Ongoing

Funding for Task 2.8 Safety Monitoring System		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	123	\$10,600
MassDOT	31	\$2,650
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>154</b>	<b>\$13,250</b>

## Task 2.9 – Transportation and Livability

### Description

Former U.S. Department of Transportation Secretary Ray LaHood once defined Livability as “being able to take your kids to school, go to work, see a doctor, drop by the grocery or post office, go out to dinner and a movie, and play with your kids at the park -- all without having to get in your car.”

In 2009, USDOT, the Department of Housing and Community Development (HUD), and the Environmental Protection Agency (EPA) formed the Interagency Partnership for Sustainable Communities “to help improve access to affordable housing, more transportation options, and lower transportation costs while protecting the environment in communities nationwide.” These agencies then established the following *Six Principles of Livability* to attain this goal:

- **Provide more transportation choices** to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health.
- **Expand location- and energy-efficient housing choices** for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- **Improve economic competitiveness of neighborhoods** by giving people reliable access to employment centers, educational opportunities, services and other basic needs.
- **Target federal funding toward existing communities** – through transit-oriented development and land recycling – to revitalize communities, reduce public works costs, and safeguard rural landscapes.
- **Align federal policies and funding** to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth.
- **Enhance the unique characteristics of all communities** by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.

These six principles are intended to guide these three federal agencies to work in concert in considering and evaluating capital investments.

### Previous Work

In 2009, the MVPC completed its Priority Growth Strategy, which serves as the Regional Land Use Plan for the Merrimack Valley. A fundamental goal of the Commission in preparing this document was that it should support Sustainable Growth principles as appropriate throughout the region. As noted in the document, the PGS is intended to serve as a tool to realize a shared vision of

“... a region that promotes development in the right place that generates good jobs, new tax revenues, creates affordable housing, stimulates the economy and creates a sense of place. A region that balances growth with preservation, maintains open space and the character of the region, and is served by an effective transportation system...”

In FFY 2015, MVPC updated the PGS to reflect changes in land use and other areas addressed in the document that have taken place since 2009. Like the original, it contains numerous recommendations for creating a transportation network that will improve the region's quality of life including improving bicycle and pedestrian transportation to Priority Development Areas, implementing transit services where needed to also serve these areas and relieving roadway congestion that both slows economic growth, degrades the quality of our air and generates greenhouse gases that may have a dramatic impact on our climate.

Also in FFY 2015, staff continued to be an active participant on the Mayor's Health Task Force in Lawrence, a group that is devoted to promoting healthy living in the City, and began working with the City of Haverhill in drafting and implementing a Complete Streets ordinance.

### **FFY 2016 Activities**

MVPC staff will continue to focus on assisting communities with implementing the recommendations contained in the PGS and at the same time to further educate Valley officials and residents on both the benefits of providing a livable community and the various tools, including the Complete Streets approach to managing transportation infrastructure that can be used to accomplish this.

Staff will also continue to explore how the Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) can be used to assess the sustainability of a program or project against best practices relative to sustainability.

### **Tasks**

- 2.9.1 *Provide Technical Assistance to Communities Implementing Recommendations Contained in the PGS:* MVPC Staff will assist communities in implementing the transportation livability recommendations contained in the region's Priority Growth Strategy. These implementation activities will be developed in cooperation with the MVRTA and integrated into the Authority's Five Year Capital and Five Year Bus Improvement Design programs.
- 2.9.2 *Collect Health Data for Use in Health Impact Assessment Analyses:* In order to incorporate health impacts into planning, MVPC staff will collect data on health disparities as they pertain to transportation for the region. The information will be used for future Health Impact Analyses as well as other planning projects.
- 2.9.3 *Participate in Meetings of the Mayor's Health Task Force in Lawrence, Community Health Network Area 12 (CHNA), and Other Groups:* The MVPC joined the Lawrence Mayor's Health Task Force and is partnering with this coalition to policies, systems and



environmental changes that impact health and which pertain to transportation. In partnership with the coalition, MVPC is assisting with drafting and implementing a Complete Streets policy, initiating Ciclovía (open streets) and other transportation-related projects.

- 2.9.4 *Provide Technical Assistance to Communities Seeking to Implement Safe Route to Schools Projects:* Though not all, many MVPC communities have joined the Safe Routes to School program through MassRides. MVPC will work to encourage more schools to join the program and assist communities seeking infrastructure improvements to encourage more children to walk or bicycle to school.
- 2.9.5 *Assist Communities in Development of Complete Streets Ordinances:* The Transportation Bond Bill that was passed by the state legislature in spring 2014 included a program that would provide funding to communities that would adopt Complete Streets ordinances and establish goals for increasing bicycling and walking. Staff will work with communities interested in adopting such ordinances by providing examples of similar ones that have been adopted around the state. In addition, staff will assist communities in gathering the data identified required by MassDOT in order for communities to apply for funding under their new program.

## Products/Schedule

- Task 2.9.1 - Technical Assistance to Communities – Ongoing
- Task 2.9.5 - Assist Communities in Development of Complete Streets Ordinances --Ongoing

Funding for Task 2.9 Transportation and Livability		
Source	Person Hours	Amount
FHWA	112	\$10,920
MassDOT	28	\$2,730
FTA Section 5303	117	\$11,100
FTA Section 5307	0	\$0
MVPC	29	\$2,775
TOTAL	286	\$27,525

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## **Task 2.10 - Development of MVMPO Transportation Performance Measures and Targets**

### **Description**

With the passage of MAP-21 in 2012, Congress mandated that USDOT should establish a performance and outcome-based approach to managing the nation's transportation infrastructure. As noted in Section 150(a) of Title 23, U.S.C.:

*Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the Federal-aid highway program, and improving project decision making through performance-based planning and programming.*

The performance and outcome based management approach created in MAP-21 requires that MPO's, state DOTs, public transportation providers and other entities receiving federal transportation funds adopt performance standards and measures in a number of key areas. These measures will create a yardstick by which their progress in meeting agency goals and objectives can be measured. These entities must also establish Targets that are based on these measures so that agency effectiveness in meeting their goals can be evaluated.

MAP-21 identifies National Performance Goals in the areas of Safety, Infrastructure Conditions, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, and Reduced Project Delivery Delays.

During 2014 and 2015, USDOT released Notices for Proposed Rulemaking for the following Performance Measures:

- Safety
- Highway Safety Improvement Program
- Planning
- Pavement and Bridge Condition
- Asset Management Plan

An additional NPRM is scheduled to be released by USDOT later this year for proposed performance measures for system performance, traffic congestion, on-road mobile source emissions, and freight movement. State transportation agencies will have one year from the publication of final rules to establish these measures and targets. Working in cooperation with USDOT and their state transportation agencies, MPOs will then have 180 days to adopt their own measures and targets.

### **Previous Work**

In developing the FFY 2015 UPWP, MVPC staff noted that the implementation schedule for establishing State and MPO Performance Measures and Targets did not mesh well with the schedule for developing the MVMPO's FFY 2016 RTP. Continuing with work begun in FFYs 2013

and 2014, MVPC staff identified various transportation performance measures that were integrated into the Draft FFY 2016 RTP.

### **FFY 2016 Activities**

Staff's focus in FFY 2016 will be on refining the performance measures included in the RTP while at the same time monitoring USDOT/MassDOT efforts to develop performance measures that meet MAP-21 requirements.

### **Tasks**

- 2.10.1 *Safety Performance Measures/Targets; Incorporate Injury Severity Data:* MAP-21 establishes a National Goal of reducing both the number of fatalities and serious injuries that take place on the nation's transportation system as well as the number of such injuries per Vehicle Mile Traveled. Staff will work with MassDOT to obtain information on the specific circumstances surround crashes that result in fatalities and serious injuries so that effective strategies can be identified to reduce their occurrence. In addition, VMT data generated by MassDOT and reported to FHWA will be used in these performance measures so as to provide a better source of by which to generate crash rates.
- 2.10.2 *Collect Data on the Location of Sidewalks in the MVMPO Region:* While this measure was used in the FFY 2016 RTP, reliable data showing the location and condition of sidewalks in the Valley is lacking. MVPC GIS staff has developed a methodology for collecting this information using aerial photograph, MassDOT's Road Inventory File, and other resources. Staff will select three MVMPO communities where this new methodology will be employed.
- 2.10.3 *Continue to Refine Congestion Reduction Performance Measures By Better Defining Overall Exposure:* It is the goal of MVPC transportation staff to make maximum use of travel time data resources in the region's Congestion Management Process. The analyses performed by MVPC staff in the development of the RTP pointed out the need to develop a more manageable method of aggregating travel data for use as a screening tool to identify congested locations.

## Products/Schedule

- Task 2.10.1 - Safety Performance Measures/Targets – February 2016
- Task 2.10.2 - Sidewalk Performance Measures/Targets - May 2016
- Task 2.10.3 - Congestion Management Performance Measures/Targets  
–January 2016

<b>Funding for Task 2.10 Transportation Performance Measures</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	146	\$18,000
MassDOT	36	\$4,500
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>182</b>	<b>\$22,500</b>

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### **TASK 3.0 - SHORT AND LONG-RANGE TRANSPORTATION PLANNING ACTIVITIES**

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## **Task 3.1 – Elderly and Disabled/ADA Planning**

### **Description**

The MVRTA has long been a leader among the Commonwealth's regional transit authorities in providing reliable, affordable transportation for the elderly and disabled. The MVRTA was the first Regional Transit Authority (RTA) in the Commonwealth to operate a fully accessible fixed route bus fleet.

The MVMPO region's elderly population continues to grow and elevate demand for non-ADA demand-response transportation. Increased regional demand for federally-mandated ADA transportation services also continues. Accordingly, combined ADA- and non-ADA transportation demands continue to impact the MVRTA's annual budget. With federal operating subsidies now largely phased out for transit authorities in urbanized areas of 200,000 people or more, the MVRTA must consider a range of options in how to satisfy its obligations under ADA.

### **Previous Work**

Under the FFY 2008 UPWP, staff finalized the Coordinated Public Transit-Human Services Transportation Plan for the MVMPO and conducted two rounds of grant applications (January and July/August 2008). It also completed an analysis of transportation issues facing the region's disabled population; forecasts of the region's disabled population to 2030, transit service demand estimates for persons with disabilities, and recommendations as to the type of transit services that will meet this groups transportation needs.

In FFY 2009 staff updated the MVRTA's 2004 Elderly Transportation Study. Staff evaluated the transportation services available to the region's elders at that time and recommended strategies for increasing elder mobility while meeting future ADA transportation program demands.

In recent years, staff has assisted MVRTA in monitoring its EZTrans and Fixed Bus Route services for ADA compliance. It also assisted the MVRTA in securing funding for the 'Medi Van' program, which provides transportation for disabled persons in the Valley to medical facilities in Peabody and in Boston, and prepared the 2014 Coordinated Plan that is also referenced in Task 3.2 below:

### **Tasks**

- 3.1.1 *Continue to Assist the MVRTA in Complying with ADA Paratransit Requirements:*  
MVPC will assist the MVRTA in reviewing EZTrans Service for compliance with ADA Paratransit requirements.
- 3.1.2 *Assist the MVRTA in Monitoring Compliance with ADA Fixed Route Bus Requirements:*  
The MVPC will survey MVRTA lift maintenance and repair procedures, wheelchair securement system maintenance and repair procedures, and other areas to ensure that the MVRTA is meeting the requirements of Subpart G of Part 37 of the ADA regulations.

3.1.3 *Oversight of Mobility Assistance Van Program:* As part of the Mobility Assistance Grant, MVRTA is required to monitor maintenance of MAP vehicles being used by Councils on Aging. MVPC staff will assist MVRTA in setting up and implementing this process.

## Products/Schedule

- Task 3.1.1 - Assist MVRTA in Monitoring ADA Demand Response Requirements – Ongoing
- Task 3.1.2 - Assist MVRTA in Monitoring ADA Fixed Route Bus Requirements – Ongoing
- Task 3.1.3 - Assist the MVRTA in Monitoring the Maintenance of MAP Vehicles  
- Ongoing

Funding for Task 3.1 Elderly and Disabled/ADA Planning		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	27	\$2,660
FTA Section 5307	181	\$16,560
MVPC	52	\$4,805
<b>TOTAL</b>	<b>260</b>	<b>\$24,025</b>

## **Task 3.2 — Transit Planning**

### **Description**

The MVRTA is the primary provider of public transportation in the MVMPO region. It provides a wide array of fixed-route bus and demand-response transportation through private operators such as the Merrimack Valley Area Transportation Co., Inc. (MVATC). The MVRTA currently operates six demand-response transit services in the region – its Ring and Ride Services in Boxford, Georgetown, Groveland, Newbury, Salisbury, and West Newbury. It also operates demand-response services as more efficient options to the former Route 42 in Methuen; the former Route 22 in Andover, and a section of its Route 51 in Newburyport.

The MVMPO performs specific planning tasks every FFY in support of the MVRTA's public transportation services.

### **Previous Work**

The MVRTA made significant progress in planning and implementing major transit capital projects in FFY 2013, particularly with completion of the Haverhill Intermodal Transit Center and the Amesbury Costello Transportation Center. In FFY 2015, the MVRTA completed a site selection study for an Intermodal Parking Facility in the City of Newburyport, and the Newburyport City Council approved the MVRTA's recommended Titcomb Street facility site.

The MVRTA and the MVMPO staff produced a Regional Mobility Plan (RMP) in 2013. The RMP combined three previous plans (2007 Coordinated Human Service Transportation Plan, 2008 Elderly Transportation Plan, and 2009 Disabled Transportation Plan) into one planning document to best coordinate diverse transportation needs and demands with available financial resources. The MVMPO and the MVRTA produced an updated Coordinated Plan in 2015 as required by the Commonwealth's Merrimack Valley Regional Coordinating Council, with the same goal of unifying planning for the needs of these diverse groups. The Coordinated Plan is particularly important, as MassDOT requires FTA Section 5310 applicants to demonstrate that their proposed transportation projects will address an unmet transportation need in the MVMPO region.

### **FFY 2016 Activities**

Planning assistance will be provided to the Authority and local officials by the MVPC as follows:

#### **Tasks**

- 3.2.1 *Provide Technical Assistance to the MVRTA and Communities as Required:* MVPC staff has performed technical analyses for the MVRTA in previous FFYs at the MVRTA's request. Staff has prepared Requests for Proposals (RFPs) and evaluated RFP responses; estimated sample sizes for MVRTA surveys, and updated the MVRTA's fixed route bus maps. The staff will conduct similar transit planning activities for the MVRTA under the FFY 2016 UPWP. Staff will also provide technical assistance to communities on transit issues, including the MVRTA's implementation of its 2015 Regional Transit Plan. As

always, the MVMPO staff will consult and coordinate with MVRTA prior to providing transit-related technical assistance to any MVRTA member community.

- 3.2.2 *Evaluate Feasibility of Instituting Transit Service along Route 114 in North Andover:* Expansion of transit service in this corridor was one of the requests frequently heard at public outreach sessions held as part of processes of developing both the RTP and the MVRTA Transit Plan. Staff will work with the MVRTA in evaluating the potential for instituting fixed route bus or other type of transit service to Merrimack College and points south of Merrimack College.
- 3.2.3 *Evaluate Feasibility of Instituting Transit Service along Route 133 in Andover:* Continued development along MA-133 west of Shawsheen Square and between Lovejoy Road and I-93 has resulted in requests for the MVRTA to provide transit service in the corridor. Staff will work with the MVRTA in evaluating the potential for instituting fixed route bus service from downtown Andover and/or the Buckley Center to the I-93/MA-133 Interchange area
- 3.2.4 *Complete Identification of Location of Route Marker Signs:* In 2014, Route marker signs will increase the MVRTA's regional identity and visibility while guiding potential riders to convenient boarding locations. The MVMPO staff began identifying locations for route marker sign installations along the MVRTA's fixed route bus network. Staff will complete work on this task later this year.
- 3.2.5 *Support Mobility Working Group:* This group provides the MVRTA with user input on the provision of its transit services. MVPC staff will continue to support this group in FFY 2016.
- 3.2.6 *Assist MVRTA in Preparing for its Upcoming Triennial Review:* Every three years the Federal Transit Administration(FTA) conducts a review of the MVRTA's compliance with the 18 separate requirements of the FTA regarding program/project administration and the provision of transit services.

## Products/Schedule

- Task 3.2.2 - Feasibility of Instituting Transit Service in Route 114 Corridor  
– March 2016
- Task 3.2.3 - Feasibility of Instituting Transit Service along Route 133 in Andover  
- May 2016
- Task 3.2.4 - Complete Identification of Route Marker Sign locations  
– January 2016
- Task 3.2.5 - Support Mobility Working Group– Ongoing
- Task 3.2.6 - Assist MVRTA in Preparing for Triennial Review – June 2016

Funding for Task 3.2 Transit Planning		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	0	\$0
MassDOT	0	\$0
FTA Section 5303	198	\$18,480
FTA Section 5307	601	\$55,760
MVPC	200	\$18,560
TOTAL	999	\$92,800

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## **Task 3.3 – Route 1 Traffic Study in Newburyport**

### **Description**

Prior to the opening of Interstate 95 in the 1950s, the US-1 corridor functioned as the Commonwealth's chief north-south roadway connecting Boston with the New Hampshire and Maine sea-coasts. City of Newburyport officials have long been concerned about the negative impacts that the US-1 corridor has upon local mobility and the community's quality of life. Today, with I-95 in operation, US-1 in Newburyport handles far lower traffic volumes. As a result, US-1 in Newburyport is an overbuilt roadway that has physically divided Newburyport's traditional downtown. The City and MVMPO staffs intend that this Study investigate how the US-1 corridor can be modified from a long-standing physical barrier to more of a Complete Street.

### **Previous Work**

MVPC staff is assisting the City of Newburyport in evaluating the potential traffic impacts that would arise from the creation of a 40R District in the area around the MBTA Newburyport Commuter Rail Station, which is located at the southern end of Route 1 near the Newbury Town Line.

### **FFY 2016 Activities**

The MVMPO staff will work with MassDOT staff and City of Newburyport officials to develop short and long-term roadway and intersection improvements that will correct existing safety/capacity deficiencies and determine the feasibility of reconfiguring all or parts of Route 1 to better reflect Complete Street concepts.

### **Tasks**

- 3.3.1 *Data Collection:* MVPC will collect AM, PM and Saturday Midday peak period Turning Movement counts at three intersections in the corridor and will also conduct ATR counts on the roadway that will be used to ascertain if the roadway could function acceptably with a narrower roadway profile. Staff will also consult with the City's Office of Planning and Community Development to obtain any development-related data, design concepts, or other planning information relevant to this Study.
- 3.3.2 *Data Analysis:* MVPC staff will first analyze existing Levels of Service (LOS) at intersections in the corridor and then analyze these intersections using alternative roadway configurations
- 3.3.3 *Review Crash Data:* Staff will collect and analyze crash reports for the US-1 corridor as a whole and for each of the three intersections. It will obtain data for the most recent three-year period available.
- 3.3.4 *Develop Short and Long Term Recommended Improvements:* Based on the results from Tasks 3.3.2 and 3.3.3, staff will prepare preliminary short and long-term recommendations for modifying the corridor.

- 3.3.5 *Meetings with Newburyport Planning Board/MassDOT:* Staff will meet with the Newburyport Planning Board and MassDOT representatives to discuss MVMPO staff findings and preliminary recommendations and to solicit feedback for their refinement.
- 3.3.6 *Develop Concepts:* MVPC staff will create one or more corridor improvement concepts for presentation at a public forum.
- 3.3.7 *Public Outreach:* staff will deliver a public presentation of corridor improvement concepts and solicit public feedback for staff consideration. Staff will employ this feedback in developing a corridor-wide or corridor segment-by-segment preferred improvement plan.
- 3.3.8 *Prepare Draft and Final Report.* MVPC staff will prepare draft and final study reports that outline the study's findings and recommendations.

### Products/Schedule

- Task 3.3.1                - Data Collection   June 2016
- Task 3.3.7                - Public Outreach Meeting – August 2016
- Task 3.3.8                - Preparation of Final Report – September 2016

Funding for Task 3.3 Route 1 Traffic Study in Newburyport		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	250	\$24,400
MassDOT	63	\$6,100
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	313	\$30,500



## **Task 3.4 – I-495 / Merrimack Street Interchange Area Traffic Study in Methuen**

### **Description**

PM peak traffic congestion along Merrimack Street near its interchange with I-495 in Methuen is severe enough to cause significant vehicle delays. These delays accrue to motorists on virtually every approach to the three intersections in the interchange, but appear most significant for Merrimack Street northbound traffic approaching the East Street intersection.

### **Previous Work**

MassDOT's 2008 I-495 Corridor Study recommended monitoring traffic conditions at this interchange and making adjustments to the timing and phasing of the area's three signalized intersections if they are needed. This study is part of that traffic monitoring effort.

### **FFY 2016 Activities**

The MVMPO staff will complete the following tasks in developing corrective measures for safety/capacity deficiencies in this area:

### **Tasks**

- 3.4.1 *Data Collection:* MVPC staff will collect peak period turning movement counts at the three signalized and one unsignalized intersections in the study area.
- 3.4.2 *Level of Service Analysis:* MVPC will perform capacity analyses for the four intersections, and evaluate the capabilities of the traffic signal equipment that is currently in place at this location.
- 3.4.3 *Obtain Most Recent MassDOT and Local Police Crash Data:* Crash reports for the most recent three year period available will be collected and analyzed. in preparation for the Road Safety Audit of the study area.
- 3.4.4 *Draft Road Safety Audit:* Staff will present the findings from Tasks 3.4.1 - 3.4.3 to local officials in a Road Safety Audit. This audit will provide MVPC with information and suggestions that will facilitate the development of a small range of improvement options that could implemented.
- 3.4.5 *Develop and Evaluate Alternative Improvement Options:* The information obtained through the Road Safety Audit will be used to develop a small set of improvement options that will then be analyzed in greater detail to determine the impacts they might have in reducing congestion. Staff will consult with the MVRTA as part of this process to solicit input as to how bus movements through the study area can be better accommodated.
- 3.4.6 *Prepare Final Road Safety Audit Report:* MVPC staff will prepare a final version of the Road Safety Audit report that outlines the study's findings and recommendations.

## Products/Schedule

- Task 3.4.4 - Draft Road Safety Audit – June 2018
- Task 3.4.6 - Final Road Safety Audit – July 2016

Funding for Task 3.4 I-495 / Merrimack St. Intersection Study in Methuen		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	206	\$18,584
MassDOT	51	\$4,646
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	257	\$23,230

## **Task 3.5 – River Street / Lowell Avenue Traffic Study in Haverhill**

### **Description**

This study will examine traffic and safety conditions at three intersections located between the I-495 northbound off-ramp at River Street and the McDonald's driveway on River Street. MassDOT has identified the intersection of Lowell Avenue and River Street as a 2010-2012 Crash Cluster with an EPDO Score of 84. MassDOT also identified the adjacent River Street/I-495 northbound off-ramp intersection as a Crash Cluster location with an EPDO score of 79.

### **Previous Work**

MassDOT looked at this interchange as part of its 2008 I-495 Corridor Study.

### **FFY 2016 Activities**

MVPC will undertake the following tasks in conducting this study:

#### **Tasks**

- 3.5.1 *Data Collection:* MVPC staff will perform peak hour vehicle turning movement and pedestrian crossing counts at the two intersections as well as at the McDonald's Driveway on River Street and may collect turning movement counts at other significant driveways.
- 3.5.2 *Data Analysis/Level of Service (LOS) Calculations:* MVPC staff will complete LOS analyses for each intersection and the McDonald's Driveway to both measure congestion and develop crash rates, which will be used in the Road Safety Audit for the area.
- 3.5.3 *Obtain and Analyze Crash Data:* Staff will analyze MassDOT and Haverhill Police Department traffic incident reports to identify the outstanding safety issues in the area. This information will be included in the area Road Safety Audit.
- 3.5.4 *Conduct Study Area Road Safety Audit:* Staff will present the findings from Tasks 3.5.2 - 3.5.3 to local officials in a Road Safety Audit. This audit will provide MVPC with information and suggestions that will facilitate the development of a small range of improvement options that could be implemented.
- 3.5.5 *Develop Improvement Options:* The information obtained through the Road Safety Audit will be used to develop a small set of improvement options that will then be analyzed in greater detail to determine the impacts they might have in reducing congestion. Staff will consult with the MVRTA as part of this process to solicit input as to how bus movements through the study area can be better accommodated.
- 3.5.6 *Prepare Final Road Safety Audit Report:* MVPC staff will prepare a final version of the Road Safety Audit report that outlines the study's findings and recommendations.

## Products/Schedule

- Task 3.5.3 - Draft RSA Report - July 2016
- Task 3.5.6 - Final RSA Report – August 2016

Funding for Task 3.5 River St./Lowell Ave. Intersection Study in Haverhill		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	190	\$16,600
MassDOT	47	\$4,150
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	237	\$20,750

## **Task 3.6 – Parker St./Market St. & Parker St./Merrimack St. Intersections Study in Lawrence**

### **Description**

MassDOT identified both intersections as 2010-2012 Crash Clusters. The Equivalent Property Only Damage (EPDO) score for the Parker/Market Streets intersection was 67 with 19 crashes, of which twelve involved injuries. The EPDO score for the Parker/Merrimack Streets intersection was 50 with 25 crashes, of which five involved injuries. These two intersections are in close proximity (650 feet apart) and are located on either side of the MBTA Haverhill Main Line Bridge over Parker Street.

### **Previous Work**

In 2011, the MVMPO staff reviewed the geometry of the Parker/Market Street intersection.

### **FFY 2016 Activities**

MVPC transportation staff will complete the following tasks in developing proposed short and long-term improvements to this intersection to correct the safety/capacity deficiencies that now exist.

### **Tasks**

- 3.6.1 *Traffic Data Collection:* MVPC staff will collect peak period turning movement and pedestrian counts at both intersections.
- 3.6.2 *Level of Service Analysis:* MVPC will perform capacity analyses for the intersections, and evaluate the capabilities of the traffic signal equipment that is currently in place at this location. The interconnection of this signal with others in downtown Lawrence will also be reviewed.
- 3.6.3 *Crash Data Analyses:* Crash reports for the most recent three-year period available in anticipation of holding a Road Safety Audit for these two locations.
- 3.6.4 *Conduct Road Safety Audit for Study Area:* *Conduct Road Safety Audit for Study Area:* Staff will present the findings from Tasks 3.6.2 and 3.6.3 to local officials in a Road Safety Audit. This audit will provide information and suggestions for development of a small range of implementable improvement options.
- 3.6.5 *Develop and Evaluate Alternative Improvement Options:* The information obtained in completion of Task 3.6.4 will be used to develop a small set of improvement options that will then be analyzed in greater detail to determine each option's congestion reduction potential. Staff will consult with the MVRTA as part of this process to solicit input as to how bus movements through the study area can be better accommodated.
- 3.6.6 *Road Safety Audit Study Report:* Staff will prepare draft and final versions of the Road Safety Audit report outlining the study's findings and recommendations.

## Products/Schedule

- Task 3.6.4                    -Draft Road Safety Audit – March 2016  
Task 3.6.6                    -Final Road Safety Audit - April 2016

<b>Funding for Task 3.6</b> <b>Parker /Market &amp; Parker / Merrimack in Lawrence</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	178	\$15,720
MassDOT	45	\$3,930
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	223	\$19,650

## **Task 3.7 – Pelham St. / Route 213 Ramps / I-93 Southbound in Methuen**

### **Description**

Westbound traffic backups on Route 213 during the AM Peak travel period have been observed between I-93 and Howe Street. The MVMPO staff's preliminary review of Route 213 travel time data during the AM peak period supports these observations. Potential factors creating this congestion are the at-grade weave at the intersection of Route 213 and I-93; the traffic merges between the I-93 southbound on-ramp and the I-93 collector road near Pelham Street, as well as the merge of the I-93 collector road and I-93 southbound.

### **Previous Work**

In 2004, The MVMPO completed a study of the I-93 Corridor in Andover and Methuen. That study recommended that weave at I-93/Route 213 should be eliminated and replaced with a bridge that would connect the I-93 Southbound off ramp with Route 213 eastbound. It also called for the construction of a right turn lane from Pelham Street eastbound onto the I-93 Southbound on-ramp. This turn lane was subsequently built.

### **FFY 2016 Activities**

MVPC will undertake the following tasks in conducting this study:

#### **Tasks**

- 3.7.1 *Review Travel Time Data for Study Area:* MVPC staff will review travel time data from 2015 to ascertain the frequency and duration of delays along Route 213 and I-93, and the I-93 Southbound Collector Road.
- 3.7.2 *Data Collection:* MVPC staff will collect turning movement count information at the intersection of Pelham Street with the I-93 Southbound on-ramp and rely on MassDOT to place ATRs the roads identified in Task 3.7.1.
- 3.7.3 *Review Merge/Weave Data/LOS Analyses:* Using the data collected in Task 3.7.2, MVPC will complete a Level of Service analysis of the intersections of Pelham Street with the I-93 Southbound on ramp and will analyze the operation of the three weave areas in the study area.
- 3.7.4 *Develop Improvement Options:* Through the analyses completed in Task 3.7.3, staff will develop a set of recommendations for reducing traffic congestion.
- 3.7.5 *Study Report:* MVPC staff will prepare a report that outlines the study's findings and recommendations.

## Products/Schedule

- Task 3.7.2 - Data Collection – April 2016
- Task 3.7.5 - Draft Study Report – May 2016
- Final Study Report – June 2016

<b>Funding for Task 3.7</b>		
<b>Pelham St. / I-93 Ramps I-93 Southbound in Methuen</b>		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	124	\$11,040
MassDOT	31	\$2,760
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>155</b>	<b>\$13,800</b>



## **Task 3.8 – Stormwater Management Technical Assistance**

### **Description**

The most recent Federal EPA Phase II National Pollutant Discharge Elimination System (NPDES) permit for Massachusetts urbanized communities overseeing municipal stormwater infrastructure was issued in 2003. That permit expired in 2008 and in the years since then, EPA has issued draft permits, the most recent published in Fall 2014. The proposed permit outlines expanded, more prescriptive requirements for city and town operators of municipal separate storm sewer systems (“MS4s”) in implementing six *minimum* stormwater management measures toward minimizing pollution to the maximum extent practicable of the Commonwealth’s rivers, streams and water bodies. The minimum control measures, elements of all compliant municipal stormwater management systems, are in areas of:

- 1) Public education and outreach;
- 2) Public participation and involvement;
- 3) Illicit discharge detection and elimination;
- 4) Construction site runoff control;
- 5) Post-construction runoff control, and
- 6) Stormwater pollution prevention/municipal good housekeeping.

MVPC staff expects that EPA will issue a final MS4 permit for Massachusetts urbanized communities and set benchmark deadlines for community compliance with the updated permit sometime in FFY16. Successful implementation of the six control measures will require a detailed knowledge of the location, function, and condition of the urbanized areas’ municipal storm drainage infrastructure – storm drains, manholes, catch basins, and outfall pipes – as well as of the receiving waters. Each community will need to prepare stormwater facilities and infrastructure operating and maintenance plans, implement rigorous monitoring and illicit discharge detection & enforcement programs, and update enhanced database and map inventories of stormwater system features including outfalls, pipes and catch basins.

Developing individual community programs that will comply with anticipated new federal requirements will be an expensive proposition. Local DPW and highway department budgets are limited and as is the staffing to implement these programs. These cost and implementation concerns were the impetus for formation of the Merrimack Valley Stormwater Collaborative, established in 2014 by the 15 MVPC communities to promote regional approaches to stormwater pollution prevention.

### **Previous Work**

During FFYs 2010 and 2011, MVPC identified and mapped high priority stormwater runoff problem areas (‘chokepoints’) in Boxford, Georgetown, Groveland, Merrimac, Rowley, Salisbury, and West Newbury. Undersized or damaged culverts and other inadequate drainage facilities in

these problem areas either cause or contribute to periodic localized flooding and temporary road closures, as well as chronic soil erosion and receiving water degradation.

During FFYs 2012 and 2013, MVPC staff worked with the communities of Boxford, Georgetown, Groveland, Merrimac, Rowley, and West Newbury to further inventory and map municipal stormwater facilities (catch basins, drain manholes, and outfall pipes), draft stormwater management regulations, and conduct local and regional workshops on the Federal Phase II regulations and stormwater best management practices, including Low Impact Development (LID) techniques.

Under the region's FFY 2014 UPWP, staff continued to work in partnership with the *Green-scapes North Shore Coalition* in organizing and participating in numerous workshops where information related to stormwater runoff and treatment issues were discussed.

Also in FFY 2014, MVPC was successful in securing funding under the Commonwealth Innovation Challenge grant-program that will:

- Develop framework for establishing local/regional stormwater utilities as a funding mechanism to support sustainable, effective, EPA-compliant local stormwater management programs (SWMPs);
- Standardize and incorporate existing local stormwater infrastructure information into a comprehensive, web-based GIS database and mapping system;
- Develop the regional Collaborative website as a platform for education/outreach tools as well as resource showcasing standard stormwater codes, policies, and procedures for operating and maintaining municipal stormwater systems;
- Design and conduct a stormwater training program for local personnel, focusing on pollution prevention and good housekeeping practices for municipal operations and facilities;
- Design and conduct a multi-faceted stormwater public education program, with targeted messaging for four distinct Merrimack Valley audiences: (1) residents, (2) businesses, institutions, commercial facilities, (3) industrial facilities, (4) real estate developers;
- Prepare Request for Proposals (RFP) templates for procurement of common stormwater management services, equipment, and supplies (e.g., catch basin inspections, outfall catchment area mapping, illicit discharge detection, dry- and wet-weather sampling, etc.), and
- Prepare a 'Sustainability Plan' to ensure the Merrimack Valley Stormwater Collaborative's viability and effectiveness over the long term.

## FFY 2016 Activities

MVPC will continue to provide Stormwater Management technical assistance to communities in the region, and will broaden its range of services to include the enhanced municipal requirements under the forthcoming Massachusetts Phase II Small MS4 General Permit.

### Tasks

- 3.8.1 *Provide Local Technical Assistance to Communities/Outreach Materials:* Staff will design and conduct local and regional workshops to inform and train municipal personnel (public works and highway departments, conservation commissions, health boards) on the new Phase II Small MS4 General Permit requirements anticipated to be issued as a final permit in FFY16, including: assistance in preparation of stormwater system operating & maintenance plans and notices of intent. Staff will also draft and customize relevant stormwater management regulatory updates and associated public outreach materials, which are critical to reducing the volume and pollutant loads of uncontrolled stormwater that enters local drainage systems, waterways, and groundwater.
- 3.8.2 *Provide Support to the Region's Stormwater Collaborative:* Staff will provide technical support to the Merrimack Valley Stormwater Collaborative. The regional coalition, made up of DPW, local conservation/stormwater management officials and regional watershed directors, meets monthly. Activities include equipment sharing, joint procurement, maintenance of information/programs on the Collaborative's website [www.merrimackvalleystormwater.org](http://www.merrimackvalleystormwater.org), and program development in areas of regulatory development and stormwater program administration.
- 3.8.3 *Stormwater Infrastructure Program Development, System Inventorying and Mapping:* Building on previous infrastructure inventorying and mapping work, MVPC will continue to collect and review drainage plans, maps, and reports and will consult with knowledgeable local DPW and highway department personnel in order to map the locations of local stormwater facilities. The emphasis will be on mapping drain pipe locations as well as the catchment areas of outfall pipes. To the extent possible, the collected information will be verified in the field by trained MVPC staff using GPS equipment.
- 3.8.4 *Participate in the Greenscapes Program:* In order to facilitate local compliance with the anticipated new Phase II stormwater quality sampling requirements, MVPC staff will conduct training sessions for municipal personnel and assist in the design of sampling programs that are tailored to the needs of individual communities, or, as appropriate, coalitions of communities. Wherever feasible, and to maximize limited local resources (both personnel and financial), MVPC will work with member communities to design and implement Phase II MS4 stormwater sampling programs on a shared, inter-municipal basis. A detailed description of the sampling programs will be incorporated in the communities' updated 5-year Storm Water Management Programs (SWMPs) to be submitted to EPA and MassDEP.

- 3.8.5 *Participate in MassBays and Regional Watershed Associations Water Quality Planning and Best Management Practices Forums and Workshops:* Staff will assist in organization and presentation at sponsored workshops & public information meetings in collaboration with MassBays National Estuary Program, Merrimack River Watershed Council, Ipswich River Watershed Association and other regional partners to be held between Fall 2015 through Summer 2016.

## Products/Schedule

- Task 3.8.1 - Local Technical Assistance: Training Workshops & Regulations/Outreach Materials – October 2015- August 2016
- Task 3.8.2 - Regional Stormwater Collaborative: Monthly meetings on stormwater management policy and programming issues  
-- October 2015- -September 2016
- Task 3.8.3 - Stormwater Infrastructure Inventorying/Mapping  
– January - September 2016
- Task 3.8.4 - Greenscapes Program Education and Stormwater Sampling Program  
Training & Design – Ongoing
- Task 3.8.5 - Collaboration with MassBays and regional watershed associations in public outreach, education and program development. - Ongoing

Funding for Task 3.8 Stormwater Management Technical Assistance		
Source	Person Hours	Amount
FHWA	194	\$19,720
MassDOT	48	\$4,930
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>242</b>	<b>\$24,650</b>

## **Task 3.9 - Climate Change**

### **Description**

This task responds to guidance that the MVMPO has received from FHWA and FTA calling for MPOs to “increase their capacity to address climate change in transportation.”

According to the FHWA report, “Integrating Climate Change into the Transportation Planning Process”, there is general scientific consensus that the earth is experiencing a long term warming trend and that human-induced increases in atmospheric greenhouse gases (GHGs), primarily from non-renewable fuel consumption. Global climate change is expected to result in rising sea levels and the increased frequency and severity of damaging weather events, including high-intensity and long-duration storms, coastal storm surges, coastal and inland flooding, and even heat waves, droughts, and wildfire. These climate change impacts pose a potential significant threat to the Merrimack Valley region’s transportation network and services, and thus need to be properly considered and integrated into the region’s future transportation planning and decision-making.

In Massachusetts, the Legislature passed its Global Warming Solutions Act (GWSA) in 2008. Its purpose is to accomplish a range of environmental objectives including the reduction of the state’s greenhouse gas emissions. The Act requires the Commonwealth, on an economy-wide basis, to:

- Reduce statewide GHG emissions between 10- 25% from 1990 levels by 2020;
- Reduce statewide GHG emissions by at least 80 percent below the 1990 levels by 2050.

The GWSA also requires that the Commonwealth’s agencies develop an implementation plan for achieving the required GHG emissions reductions by 2020. This process is now underway. Reports prepared by the consultants working on the Implementation Plan have identified a range of transportation-related policies and measures that can help achieve the required emissions reduction goals. These include the implementation of stricter federal standards for lower GHG emissions from new vehicles, prioritization of transportation projects that preserve the existing transportation system, supporting denser land use development, and promoting the use of alternative forms of transportation (e.g. public transit ridership, bicycling, Teleworking, “trip chaining”, etc.).

### **Previous Work**

MVPC staff began to review higher resolution LIDAR information to identify areas in the MVMPO region that are prone to flooding.

Staff also attended the FHWA's Climate Change Adaptation Peer Exchange and reviewed the Climate Change planning efforts that have been completed or are under way in New England and elsewhere in the nation. This event pointed to the need for the MVMPO to begin the

process of assessing the vulnerability of transportation assets to climate change events and identifying those that merit special attention/protection.

MVPC, in partnership with the Great Marsh Coalition, also planned, promoted, and co-sponsored a regional "Sea Level Rise Strategy Symposium" for Merrimack Valley and North Shore municipal officials, non-profit organizations, educational institutions, and the general public. With over 100 attendees, this workshop focused on the latest sea level rise projections, state strategies for climate change adaptation, and potential infrastructure impacts from coastal inundation.

### **FFY 2016 Activities**

Once MVPC staff completes the mapping work described above, it will identify flood-prone infrastructure in coastal areas and identify potential impacts to both local and regional transportation facilities. Staff will then work with the MVMPO and our communities to develop a methodology to evaluate how vulnerable these facilities are to flooding and what impact their loss would have on the region's transportation network as well as on infrastructure that is often related to transportation facilities such as water and sewer lines and electric lines.

### **Tasks**

- 3.9.1 *Incorporate Final Comments and Local Adoption of Natural Hazard Mitigation Plan Update:* In early 2015, staff completed draft of the Regional Natural Hazard Mitigation Plan update for the 14 participating communities. Final comments are expected from communities, MEMA and FEMA and will be addressed in the final plan document. Staff will provide technical assistance for the local adoption process and ongoing intercommunity collaboration in hazard response management.
- 3.9.2 *Map Areas Prone to Impacts from Climate Change:* Using LIDAR mapping data when it becomes available, staff will develop regional and community-specific GIS databases and maps depicting those geographic areas that are projected to be at risk from climate change impacts (especially sea level rise, coastal storm surges, and coastal and inland flooding).
- 3.9.3 *Identify Impacted Transportation Facilities and Services:* Working in cooperation with communities as part of the Sandy Grant, staff will superimpose the projected climate change impact area boundaries onto the latest digital orthophoto GIS maps depicting the region's current (and planned) transportation infrastructure in order to identify specific transportation facilities and services at risk. As part of this, MVPC will identify and map other vulnerable infrastructure in the region that, if damaged, could have an impact on the transportation system, or that would affect the transportation system as it is used by emergency responders.
- 3.9.4 *Participate In/Host Regional Workshops:* MVPC will participate and present at public workshop to inform local officials and partner agencies and organizations on the current status and anticipated impacts of climate change on the Merrimack Valley/North Shore

region. This event will be modeled after the successful Sea Level Rise symposiums held annually with MassBays partners and will again target municipal officials as well as regional environmental organizations on risk vulnerability assessment, coastal protection techniques (armoring the coastline versus natural protection), and adaptation strategies.

- 3.9.5 *Consultation and coordination* will be undertaken by the MPO staff with various state-wide and regional organizations, for example, Executive Office of Public Safety and Security (EOPSS), Massachusetts Emergency Management Agency (MEMA), Northeast Homeland Security Advisory Council (NERAC), and regional conservation and watershed agencies.

### Products/Schedule

- Task 3.9.1 - Final Region Multi- Hazard Plan Adoption and Collaborative Implementation – Oct. 2015- June 2016
- Task 3.9.2 - Climate Change Mapping and Impact Identification Assistance  
October 2015 – August 2016
- Task 3.9.3 - Impact Assessment – November 2015 – July 2016
- Task 3.9.4 - Public workshop & handout maps and materials – Ongoing
- Task 3.9.5 - Regional Collaboration -- Ongoing

Funding for Task 3.9 Climate Change		
Source	Person Hours	Amount
FHWA	202	\$20,902
MassDOT	50	\$5,226
FTA Section 5303	6	\$720
FTA Section 5307	0	\$0
MVPC	2	\$180
TOTAL	260	\$27,028

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## **TASK 4.0 - OTHER TRANSPORTATION STUDIES**

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## **Task 4.1 - Intelligent Transportation Systems (ITS)**

### **Description**

Intelligent Transportation System (ITS) technology's purpose is to maximize the efficiency of the existing transportation network. This technology has the potential to play a prominent role in the MVMPO region where the opportunities to expand existing roadway capacity are limited. Examples of ITS technologies include:

- Use of "EZ Pass" transponders at toll booths to reduce delay;
- Real-time travel information services for commuters;
- In-vehicle computers for navigation;
- Smart phone apps that can provide navigational and real time travel information;
- Incident management programs on interstates and major arterial roadways, and
- Advanced Traffic Management activities such as coordination of signals.

### **Previous Work**

The MVRTA introduced Vehicle Location/GPS-enabled capabilities for all its buses and vans including interoperability capability on its communications system in 2004. In 2005, MassDOT decided to include the MVMPO region and all other MPO regions within the Boston Urbanized Area under the umbrella of the Boston ITS Architecture. MassDOT wisely made this decision in recognition of the strong transportation connections that these areas have to Boston via automobile and transit.

In FFY 2010 the MVMPO staff participated in the stakeholder input meetings held in support of MassDOT's effort to update the Boston Regional ITS Architecture. Staff also reviewed the MBTA's ITS Architecture Report to identify what impact any impending MBTA actions could have on services the MBTA provides directly to MVMPO region (commuter rail) or to the other parts of the MBTA system.

In FFY 2010 the New Hampshire Department of Transportation (NHDOT) initiated "Open Road Tolling" (ORT) at its Hampton Toll Booths. ORT lanes can process nearly five times as many vehicles as a conventional cash toll lane and 60% more traffic than a dedicated E-Z Pass lane. The MVMPO region finds this innovation significant, as traffic backups from the Hampton Tolls during peak summer travel periods have often impacted traffic operations on Interstates 95 and 495 in Massachusetts. However, since the Hampton toll booths were upgraded Amesbury and Salisbury community officials have suggested that congestion on I-95 southbound has increased and claim that the additional throughput provided by the new tolling technology is the cause of this congestion.

In FFYs 2012 and 2013, the MVRTA introduced new fareboxes on its fixed route buses that recognize cards accepted by the MBTA.

## FFY 2016 Activities

The MVMPO staff will focus upon fully investigating the Boston ITS Architecture data archives to determine whether it can use the Boston ITS architecture's data sources to develop MAP-21-required transportation performance measures

### Tasks

- 4.1.1 *Continue Gathering Information on Existing ITS Projects in Massachusetts:* A number of Massachusetts MPOs are in line to undertake ITS Strategic Deployment Studies. MVPC staff will continue to solicit project updates from these agencies.
- 4.1.2 *Attend Future ITS Conferences and Workshops:* MVPC staff will attend ITS workshops and seminars as appropriate.
- 4.1.3 *Attend Meetings of Boston Regional ITS Architecture Committee/ITS Integration Strategy:* MVPC staff will continue to attend meetings of the Boston Regional ITS Architecture Committee and participate in MassDOT's efforts to update the Boston Regional Architecture. The MVPC will update the MVMPO on Boston ITS Architecture Committee activities that would impact their present and future ITS plans/deployments.
- 4.1.4 *Identify Transportation Data from ITS Architecture and Other Sources:* In addition to working with MassDOT's Office of Transportation Planning to identify ITS Architecture generated transportation data, the MVMPO staff will survey private sources of transportation information. Staff will prepare and deliver to the MVMPO a report outlining its data search results during development of performance measures it will use in its ongoing transportation planning process.
- 4.1.5 *Review Real Time Bus Arrival Technologies:* MVPC staff will provide assistance to the MVRTA in reviewing available real time bus arrival technologies as the MVRTA moves to implement this type of technology over the next 18 months.

## Products/Schedule

- Task 4.1.1 - Gather Information on ITS Projects – Ongoing
- Task 4.1.2 - Attend ITS Conferences and Workshops – Ongoing
- Task 4.1.3 - Attend Boston Regional ITS Architecture Meetings  
– Ongoing
- Task 4.1.4 - Transportation Data Inventory – Ongoing
- Task 4.1.5 - Review of Available Real Time Bus Arrival Technologies  
- Ongoing

Funding for Task 4.1 Intelligent Transportation Systems		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	56	\$5,080
MassDOT	14	\$1,270
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	70	\$6,350

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## **Task 4.2 - Local Technical Assistance**

### **Description**

Each year, officials from around the MVMPO region request MVPC staff assistance to address traffic issues in their communities. These requests typically are limited in scope and consist of intersection capacity analyses, review of roadway signage, small-scale parking studies, a review of local traffic regulations, analysis of traffic safety issues and assistance in completing Project Need Forms, Project Initiation Forms to advance project proposals through the MassDOT Project Development Process. Because of their limited scope and often-urgent timeframe, it is usually infeasible to prepare a scope of services to complete these projects.

### **Previous Work**

Examples of technical assistance projects undertaken under the FFY 2015 UPWP and recent years include:

- Provision of technical assistance to the City of Newburyport in Analyzing Potential Traffic Impacts of Proposed 40R District to be located in vicinity of MBTA Commuter Rail Station;
- Preparation of Downtown Parking Utilization Study for the Town of North Andover;
- Preparation of Traffic and Pedestrian Improvement Concept Plans for Plum Island in Newbury;
- Preparation of recommended improvements for bicycle and pedestrian travel in and around the intersection of Green Street and Merrimac Street in Newburyport;
- Conduct of ATR counts on Hancock and Chestnut streets supporting the preparation of 25% plans for the City Branch Rail Trail – Phase II;
- Reviewed the operation of the traffic signal at the intersection of Route 114 and Chicker-  
ing Street and prepared a short report for the Mayor of Lawrence, and
- Development of School Zone signage and pavement parking plan for the Consentino Middle School in the City of Haverhill.

### **FFY 2016 Activities**

MVPC staff will continue to provide technical assistance to member communities and local citizens on an as-needed basis.

### **Tasks**

- 4.2.1 *Respond to Community Requests for Transportation Data and Analyses:* MVPC staff will respond to small-scale, limited requests for technical assistance in addressing transportation issues in the MVMPO region.

## Products/Schedule

Task 4.2.1                    - Local Technical Assistance— Ongoing

Funding for Task 4.2 Local Technical Assistance		
Source	Person Hours	Amount
FHWA	177	\$15,760
MassDOT	44	\$3,940
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	221	\$19,700



## Task 4.3 - Regional Transportation Security

### Description

The events of September 11, 2001 and the tremendous damage caused by Hurricanes Rita and Katrina dramatically raised awareness regarding the security of the nation's transportation system. In the Merrimack Valley region, winter storms have caused severe damage to beach areas on Plum Island in Newbury and major rain events have often resulted in flooding that closes major arterial roadways such as Route 1 in Salisbury and Route 114 near the Lawrence/North Andover line.

Federal requirements include security as a factor that MPOs must address in the transportation planning process. MPOs must ensure that their planning process "...should provide for consideration and implementation of projects, strategies, and services that will increase the security of the transportation system for motorized and nonmotorized users."

### Previous Work

In February 2008, the Merrimack Valley Planning Commission prepared the **Merrimack Valley Multi-Hazard Pre-Disaster Mitigation Plan** *Action Plan to Reduce or Eliminate the Long-term Loss in Human Life and Property from Natural Hazards*. This plan was developed by MVPC in cooperation with 12 of the region's 15 cities and towns pursuant to the Disaster Mitigation Act of 2000 (DMA 2000), which established a national program for pre-disaster mitigation and streamlined the federal administration of disaster relief. This legislation also requires all communities to have a FEMA-approved "Multiple Hazards Mitigation Plan" in order to qualify for FEMA funding under the Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), and Hazard Mitigation Grant Program (HMGP).

In FFY 2012, with funding assistance from MEMA, MVPC began working collaboratively with the region's 15 communities to prepare an updated Merrimack Valley Multi-Hazard Mitigation Plan covering the period of 2013-2018. This work was completed at the end of 2014 when the draft of the updated plan was submitted to FEMA for review. Early in 2015, MVPC staff worked with committees to secure local endorsement of the Draft.

MEMA has also completed a Statewide Mass Care and Sheltering Plan and is in the process of preparing a Statewide Evacuation Plan and Local Toolkit to address evacuations of one or more communities for "no notice" and "notice" events. The Evacuation Plan and Local Tool Kit will be completed in early 2016. Coordination of the Mass Care and Sheltering Plan and the Statewide Evacuation Plan with locally developed Mitigation Plans will be required in order to establish expectations, roles/responsibilities and to avoid inconsistencies and duplication of efforts at both the State and Local levels.

In 2011, NERAC commissioned a study to assess each Massachusetts region's emergency transportation needs and investigate the availability of transportation assets and agreements in NERAC communities, including all those in the Merrimack Valley region. This study resulted in

the development of the following planning tools for communities to use in improving planning for the evacuation of local populations.

- **An Emergency Vehicle Adequacy Calculator (EVAC) Tool** assists communities in estimating the number and types of vehicles that would be necessary to complete an evacuation of a given population within a known time frame;
- **A Transportation Asset Database** contains a listing of each transportation asset in the NERAC region, and
- **A Transportation Availability Workbook** contains a series of worksheets and step-by-step instructions that enable communities to assess their individual levels of transportation readiness and evacuation preparedness.

In FFY 2010, the MVRTA became the first transit provider to convert a public transit bus into an Ambu-Bus for use by first responders as a casualty vehicle. The Ambu-Bus can accommodate 12 stretchers and a small number of walk-on patients for treatment and to transport individuals to hospitals. The Authority made this vehicle available to the organizers of the 2014 Boston Marathon. The Authority also has two Evacuation Vans available for deployment.

The MVRTA is the transit representative to the Northeast Regional Advisory Council (NERAC) that was established under the Executive Office of Public Safety and chairs the NERAC Working Group on Evacuation Planning.

### **FFY 2016 Activities**

Staff will continue to work with our communities to complete the region's Multi-Hazard Mitigation Plan and to assist local officials in obtaining its adoption. Staff will continue to monitor information from USDOT, NARC, AAMPO and other sources on this subject to determine what basic elements should be addressed by an MPO in evaluating its transportation network. It will review and evaluate the ongoing activities of other RPAs and MPOs around the nation in this matter and assess their potential applicability in the MVMPO region. MVPC staff will then report back to the MVMPO to discuss what actions should be taken to address this issue either through an amendment to this UPWP or as a task in the FFY 2016 UPWP.

### **Tasks**

- 4.3.1 *Review Developments in Transportation Security Planning:* Staff will continue to monitor materials and policies of transportation security issued by, NERAC, USDOT and state transportation agencies.
- 4.3.2 *Assist in Merrimack Valley Region Multi-Hazard Mitigation Plan Adoption:* Each MVMPO community must approve the Multi-Hazard Mitigation Plan before it will be recognized by MEMA. To assist in this effort, the MVMPO staff will provide information to local officials to present to their Boards of Selectmen and City Councils and, when requested, attend public meetings where the adoption of this Plan will be discussed and/or action taken.

- 4.3.3 *Assist Communities in Implementing/Monitoring Multi-Hazard Mitigation Plan Elements:*  
Once adopted, MVPC staff will assist community officials in implementing the recommendations contained in the document as well with the associated monitoring effort.

## Products/Schedule

- Task 4.3.1           - Review Developments in Transportation Security Planning  
                              - Ongoing
- Task 4.3.2           - Assist Communities in Adopting Multi-Hazard Mitigation Plan  
                              - Ongoing
- Task 4.3.3           - Assist Communities in Implementing/Monitoring Multi-Hazard Mitigation Plan Elements:- Ongoing

Funding for Task 4.3 Regional Transportation Security		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	56	\$6,920
MassDOT	14	\$1,730
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
<b>TOTAL</b>	<b>70</b>	<b>\$8,650</b>

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## **Task 4.4 – County Road Adjudication**

### **Description**

Chapter 336 of the Acts of 2006 amended several sections of Chapter 82 of Massachusetts General Laws governing the alteration, relocation and discontinuance of county roads. Section 1 of Chapter 82, as amended, states that regional planning agencies have the responsibility to “lay out, alter, relocate and discontinue highways and order specific repairs thereon” in those areas where no county government or council of governments exists. The General Court also mandated that the regional planning agencies in such areas create regional Adjudicatory Boards to take actions on any proposed changes to county roadways in their jurisdiction. With the dissolution of Essex County in 1996, the Merrimack Valley Planning Commission fell under this requirement.

The Merrimack Valley Planning Commission Adjudicatory Board is comprised of five members:

- MVPC Chairman
- MVPC Vice Chairman
- MVPC Secretary
- MVPC Treasurer
- MassDOT District 4 Highway Director (or designee)

### **Previous Work**

The Merrimack Valley Planning Commission Adjudicatory Board (MVPC Adjudicatory Board) has taken the following actions since its creation:

- Approved a request from the Town of Amesbury to discontinue a section of county road layout near the intersection of Routes 150 and 110 (June 2009);
- Approved a request from the Town of Boxford to discontinue a section of county road layout for Towne Road, which is located near the North Andover town line (September 2011);
- Approved a request from the City of Amesbury to discontinue a sliver of the old County Road layout along Route 110 just east of the intersection where a discontinuance was approved in 2009 (September 2012), and
- Approved a request from the Town of Merrimac to discontinue the section of River Road that lies between Skunk Road and a point just east of its intersection with Middle Road, which had been severely damaged by storms in 2006 and 2010 (October 2013).

## FFY 2016 Activities

MVPC staff will continue to implement and refine the review and approval process for the relocation/discontinuance of county roadways and roadway layouts that are located on or adjacent to federal aid-eligible roadways in the region.

### Tasks

- 4.4.1 *Implement/Amend Merrimack Valley Region County Road Adjudication Board and Roadway Review Process:* MVPC staff will implement and, as needed, amend the process for the review of requests to alter county roadways.

### Products/Schedule

Task 4.4.1                      - Implement Adjudication Process – Ongoing

Funding for Task 4.4 County Roads Adjudication		
<u>Source</u>	<u>Person Hours</u>	<u>Amount</u>
FHWA	22	\$2,520
MassDOT	6	\$630
FTA Section 5303	0	\$0
FTA Section 5307	0	\$0
MVPC	0	\$0
TOTAL	28	\$3,150

# FFY 2016 UPWP TASK FUNDING SUMMARY

FFY 2016 UNIFIED PLANNING WORK PROGRAM TASK FUNDING SUMMARY					
Task	Description	FHWA/ MassDOT (PL)	FTA/ MassDOT/ MVPC Sect. 5303	FTA/ MVRTA/ MVPC Sect. 5307	FFY 2016 TOTAL
1.1	Program Management & Support.	\$73,600	\$29,440	\$9,600	\$112,640
1.2	Public Participation Process	\$53,260	\$19,185	\$0	\$72,445
1.3	Unified Planning Work Program	\$13,980	\$3,015	\$0	\$16,995
1.4	Transportation Improvement Program	\$31,800	\$7,405	\$0	\$39,205
1.5	Updating Transportation Web Pages	\$10,970	\$7,050	\$0	\$18,020
1.6	Title VI/Environmental Justice/LEP Activities	\$17,700	\$8,600	\$0	\$26,300
1.7	Regional Transportation Plan	\$5,200	\$625	\$0	\$5,825
2.1	Traffic Monitoring Program	\$65,980	\$0	\$0	\$65,980
2.2	Regional Pavement Management Program	\$15,200	\$0	\$0	\$15,200
2.3	Geographic Information Systems	\$90,575	\$16,225	\$0	\$106,800
2.4	Congestion Management Process	\$16,100	\$1,950	\$0	\$18,050
2.5	Intermodal Connections to NHS System/Freight Planning	\$14,270	\$2,075	\$0	\$16,345
2.6	Regional Transportation Model	\$21,150	\$2,550	\$0	\$23,700
2.7	Bicycle /Pedestrian /Water Trails Planning	\$26,400	\$0	\$0	\$26,400
2.8	Safety Monitoring System	\$13,250	\$0	\$0	\$13,250
2.9	Transportation and Livability	\$13,650	\$13,875	\$0	\$27,525
2.10	Development of Transportation Performance Measures	\$22,500	\$0	\$0	\$22,500
3.1	Elderly and Disabled / ADA Planning	\$0	\$3,325	\$20,700	\$24,025
3.2	Transit Planning	\$0	\$23,100	\$69,700	\$92,800
3.3	Route 1 Traffic Study in Newburyport	\$30,500	\$0	\$0	\$30,500
3.4	I-495 / Merrimack St. Intersection Study in Methuen	\$23,230	\$0	\$0	\$23,230
3.5	River St./Lowell Ave. Intersection Study in Haverhill	\$20,750	\$0	\$0	\$20,750
3.6	Parker St./Market St. & Parker St./Merrimack St. in Lawrence	\$19,650	\$0	\$0	\$19,650
3.7	Pelham St. / Rte. 213 Ramps / I-93 Southbound in Methuen	\$13,800	\$0	\$0	\$13,800
3.8	Stormwater Management Technical Assistance	\$24,650	\$0	\$0	\$24,650
3.9	Climate Change	\$26,128	\$900	\$0	\$27,028
4.1	Intelligent Transportation Systems	\$6,350	\$0	\$0	\$6,350
4.2	Local Technical Assistance	\$19,700	\$0	\$0	\$19,700
4.3	Regional Transportation Security	\$8,650	\$0	\$0	\$8,650
4.4	County Road Adjudication	\$3,150	\$0	\$0	\$3,150
	<b>TOTAL</b>	<b>\$702,143</b>	<b>\$139,320</b>	<b>\$100,000</b>	<b>\$941,463</b>
	<b>AMOUNT AVAILABLE</b>	<b>\$702,193</b>	<b>\$139,406</b>	<b>\$100,000</b>	<b>\$941,599</b>

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## Comments Received on Draft FFY 2016 UPWP and Responses

### ***MassDOT***

#### General Comments

Please ensure that the document is in an accessible format.

**Response: Document has been prepared using 12 pt. font and 1.15 line spacing.**

The document in its entirety has a substantial amount of grammatical and punctuation errors. It needs to be thoroughly proof read and edited before endorsement.

**Response: Staff has run additional checks of the document to identify and correct recurrent issues noted below under ‘Specific Comments’.**

Please consider adding a table showing UPWP projects and their relationship to federal planning factors.

**Response: This table may be found on Page 20 of the Draft.**

The amendment/administrative modifications procedure to UPWP is not discussed in the document. Please consider adding a short paragraph explaining the procedure.

**Response: This language was added to Subtask 1.3.2.**

#### Specific Comments

##### Introduction

Page 16- The second sentence in the “eight planning factors” paragraph is incomplete. Please address.

**Response: This section was removed from the document as this topic is more fully addressed on Page 20.**

Page 17 – The first paragraph in the “Comprehensive Economic Development Strategy” topic is confusing and not articulated well. Please address.

**Response: A new paragraph that better explains the CEDS has been provided.**

Page 18- Regional Data Center- Replace “Census” with “U.S. Census.”

**Response: Change has been made.**

Page 21- The data format for MVPC funding should be updated to conform to the formatting in the rest of the document.

**Response: The format of this table has been modified.**

Page 32- Please remove the extra period at the end of Task 1.1.7.

**Response: Change made.**

Page 33- The formatting of the Products/Schedule table and its header is not done properly. Please check.

**Response: Individual Subtasks have been identified to maintain consistency with other sections of the document.**

Page 35- Task 1.2- Previous Work: In the second paragraph, reference to MassDOT is repeated twice in the same sentence.

**Response: Extra reference to MassDOT has been removed.**

Page 36- FFY 2016 Activities- Please replace "...tasks described above" with "tasks described below."

**Response: Change has been made.**

Page 39- Task 1.3.1- Replace "...2014 UPWP..." with "...2017 UPWP..."

**Response: Change has been made.**

Page 41- Previous Work- There are grammatical errors in the second paragraph. Please fix.

**Response: Modified first sentence to correct the problem.**

Page 43- Task 1.4.5- Please check the paragraph for grammatical errors.

**Response: Added the word "in" in the last sentence to correct the problem.**

Page 44-Task 1.4.3- Replace "FFY2017-2019 TIP" with "FFY2016-2019 TIP."

**Response: Change has been made.**

Page 44- Task 1.4.6- The phrasing of the first sentence of the paragraph is confusing. Please check and rephrase.

**Response: Revised the first sentence.**

Page 45- FFY 2016 Activities- Please remove the period after the parenthesis.

**Response: Change has been made.**

Page 46- Task 1.5.2- Replace "...Meets..." with "...meets..."

**Response: Change has been made.**

Page 46- Products/Schedule - Replace "November 2016" with "November 2015."

**Response: Change has been made.**

Pages 51- Task 1.7.1- Please remove the two extra periods at the end of the paragraph.

**Response: Change has been made.**

Page 63- Task 2.3.7- Remove the second period at the end of the sentence.

**Response: Change has been made.**

Page 67- Intermodal Connections with National Highway System/Freight Planning-

- Please consider adding an activity to develop a freight planning action plan. The goal of this plan should be to study freight related issues in the region and identify possible freight analyses that could address one or more of the MPO's freight planning goals.

**Response: While we agree with the need to undertake such a study, staff's work on the Regional Park and Ride Lot Study will make it difficult to complete in FFY 2016. This is a task that could be included in the FFY 2017 UPWP.**

- Previous Work- Remove the second period at the end of the last sentence.

**Response: Change has been made.**

- Task 2.5.2- Please remove the second colon after "Regional Park and Ride Lot Study" and the second period in "...ownership/operation..."

**Response: Changes have been made.**

Page 71- Task 2.7 – Bicycle/Pedestrian/Water Trails Planning-

- Please consider adding a sub-task supporting the administering a bicycle parking program. Region may utilize any available target Congestion Mitigation and Air Quality (CMAQ) or Transportation Alternatives Program (TAP) funds in the Transportation Improvement Program (TIP) for such a program.

**Response: Subtask 1.4.8 has been added to Task 1.4 – TIP that will allow MVPC staff to work with MassDOT District 4 to develop regional programs that could use CMAQ and TAP funds to fund the purchase of bike racks, construct ADA ramps on federal aid roadways, and construct sections of sidewalk (see below).**

- Please consider identifying bicycle and pedestrian safety needs and performing accessibility analyses at key transit locations/stations in the region.

**Response: Staff will review status of a similar analysis performed previously to determine whether this task should be added.**

- Please ensure that the activities within this task help communities consider creating bicycle projects that can be advanced into the MassDOT Project Development Process. Provide language that emphasizes the priority of projects on the Bay State Greenway.

**Response: Reference to the Bay State Greenway has been added to Subtask 2.7.3.**

- Please consider adding a sub-task to support the identification of critical sidewalk gaps in the region and assist communities in utilizing any available regional TAP funds to connect gaps along federally-aided roadways.

**Response: See highlighted response above.**

Page 78- Task 2.9.3- Please spell out “CHNNA”

**Response: Change has been made and “CHNNA” has been corrected to read “CHNA.”**

Page 82- Task 2.10.3- The first sentence in the paragraph is phrased incorrectly. Please fix.

**Response: Removed “In working in” from beginning of first sentence.**

Page 97- Task 3.5- Please replace the comma with a period at the end of the last sentence in the paragraph.

**Response: Change has been made.**

Page 101-

- Task 3.7.1- At the end of the sentence remove the second period.

**Response: Change has been made.**

- Task 3.7.2- Replace “3.7.1.1” with “3.7.1.”

**Response: Change has been made.**

- Task 3.7.3- At the end of the sentence remove the second period.

**Response: Change has been made.**

- Task 3.7.4- At the end of the sentence replace the comma with a period.

**Response: Change has been made.**

Page 103- Task 3.8- The following sentence is confusing” “Developing individual community programs compliant with anticipated new federal requirements will be an expensive proposition that taxes already strained local DPW and highway department budgets and staff.” Please check and rephrase.

**Response: Sentence has been modified.**

Page 108- Task 3.9.3- The following sentence is confusing: “Working with communities as part of the Sand Grant... through Staff will superimpose the projected climate change impact area boundaries onto the latest digital orthophoto GIS maps depicting the region’s current (and planned) transportation infrastructure in order to identify specific transportation facilities and services at risk.” Please check and rephrase.

**Response: First sentence has been edited.**

Page 109- Products/Schedule- Task 3.9.3- Please replace “November – July 2016” with “November 2015 – July 2016.”

**Response: Change has been made.**

Page 113-

- Task 4.1- The sentence “Staff also reviewed the MBTA’s ITS Architecture Report to identify what MBTA actions would impact services the MBTA provides directly to MVMPO region residents (commuter rail) or to its residents as they use the other parts of the MBTA system.” is confusing. Please check and rephrase.

**Response: Change has been made.**

- Task 4.1- Please replace “ac-accepted” with “accepted.”-

**Response: Change has been made.**

Page 114- Task 4.1.4- Please replace “Mass-DOT’s...” with “MassDOT’s...”

**Response: Change has been made.**

Task 4.2- Local Technical Assistance- Please consider adding specific language to enhance the MPO staff’s assistance in helping communities advance projects from studies into the MassDOT Project Development Process, namely Project initiation Form (PIF)/Project Needs Form (PNF) submissions to the District.

**Response: The ‘Description’ section of Task 4.2 has been modified to reference the above documents.**

Page 119- Task 4.3- Previous Work- Please replace “...and Hazard Mitigation Grant Program (HMGP” with “...and Hazard Mitigation Grant Program (HMGP).”

**Response: Change has been made.**

Page 125- The format of the data provided for the MVPC task funding summary should be updated to conform to other similar formats in the document for consistency.

**Response: The format of this table has been modified.**

***Jim Jalbert, President of C&J Bus Lines***

Wrote to express his support for the MVMPO Conducting the Regional Park and Ride Lot Study as described in Task 2.5.2.



July 20, 2015

Secretary of Transportation Stephanie Pollack  
Merrimack Valley Metropolitan Planning Organization  
160 Main Street  
Haverhill, MA 01830

Dear Secretary Pollack:

As the operator of the Newburyport Park & Ride, I wish to support the Regional Park & Ride Study as proposed in the Merrimack Valley Metropolitan Planning Organization's *Draft Federal Fiscal Year 2016 Unified Planning Work Program (UPWP)*.

During the past 19 years, C&J Bus Lines has operated the Newburyport Park & Ride as the Newburyport Transportation Center under a lease agreement with the Massachusetts Department of Transportation. During this time, both the facility and companies serving this location have collectively experienced significant growth in terms of both bus passengers and park & ride patrons. To date, this facility has expanded from its original design on three separate occasions, all resulting from expanded bus service and enhanced security to 24-hour terminal operations. Presently, parking use is consistently at or near design capacity year-round with a minimum of 30% being related to rideshare.

Our experience clearly demonstrates a direct correlation between safe, convenient and quality bus services and a successful park & ride facility. Both bus passengers and rideshare patrons enjoy multiple transit options while having a sense of security regarding the safety of the facility itself, something not enjoyed by parking lots without a terminal presence.

We are of the opinion that the proposed study will identify those facilities in the Merrimack Valley that warrant either expansion or new development. We are thus hopeful that funding for this project will be approved and the study process initiated.

In closing, we look forward to this project being approved as part of the UPWP and to offering our assistance in helping determine the future needs of park and ride facilities in the region.

Sincerely yours,  
  
James M. Jalbert  
President



**Portsmouth Transportation Center**

185 Grafton Drive • Portsmouth, New Hampshire 03801 • (603) 430-1100 • 1 (800) 258-7111 • Fax: (603) 433-8960  
[www.ridecj.com](http://www.ridecj.com)

Comments on UPWP 6252015 Edition

7/2/2015

Submitted by: Joseph J Costanzo, Administrator, MVRTA

1. Page 12: MVRTA Regional Transit Plan

Replace the first two (2) sentences with the following:

The MVRTA has completed its Comprehensive Regional Transit Plan. This document addresses fixed route bus service by examining route ridership, evaluating individual bus routes, identifying areas for transit service and includes service recommendations for FY 2016, 2017 and 2018. The Plan also identifies areas for additional study in FY 2016. Since this Regional Transit Plan will be used by the MVRTA to plan for and implement transit services in the future any transit proposals must be included in this Plan in order to receive consideration for programming and implementation by the MVRTA.

**Response: Sentences have been replaced.**

2. Page 13: MVRTA Paratransit Study

Replace with the following:

The Authority will be participating in two studies involving paratransit service that will be conducted through the Massachusetts Association of Regional Transit Authorities (MARTA). The first study will be concerned with the provision of service under the requirements of the Americans with Disabilities Act. The second study will be concerned with non-ADA paratransit services. Scopes of Work are being prepared for these two studies. Both studies are anticipated to be underway in Federal Fiscal Year 2016. MVPC staff will be assisting the MVRTA in this effort.

**Response: Sentences have been replaced.**

3. Page 16: Interstate 495 Corridor Study

Comment: It would be useful to add the completion date of this study. This will give the reader the historical perspective of when the study was completed and when improvements are actually programmed.

**Response: Section modified to show I-495 Corridor Study was completed in 2008.**

4. Page 89: Task 3.2, Subtask 3.2.6 Assist MVRTA in preparing for its Triennial Review

Revise first sentence as follows:

Every three years the Federal Transit Administration (FTA) conducts a review of the MVRTA's compliance with the 18 separate requirements of the FTA regarding program/project administration and the provision of transit services.

**Response: Sentence has been revised.**



5. Page 95: Task 3.4 I-495/Merrimack St Interchange Traffic Study in Methuen  
Page 97: Task 3.5 River Street/Lowell Avenue Traffic Study in Haverhill  
Page 99: Task 3.6 Parker St/Market St/; Parker St/Merrimack St Intersection Study in Lawrence

Comment: These are important studies for MVRTA Bus Operations as bus travel through these intersections occurs 12-14 hours per day 7 days per week The MVRTA would request to be involved with these studies so as to provide input as to bus movements and any derived safety improvements.

**Response: Tasks 3.4, 3.5 and 3.6 have been modified to include MVRTA involvement.**

6. Page 113: Task 4.1 Intelligent Transportation Systems(ITS)  
Add subtask 4.1.5:

Provide assistance to the MVRTA in reviewing available real time bus arrival technologies as the MVRTA moves to implement this type of technology over the next 18 months

**Response: Subtask added.**

7. Page 119: Regional Transportation Security

Under Previous Work, the third paragraph, the second and third sentences should be replaced with the following:

The Evacuation Plan and Local Tool Kit will be completed in early 2016. Coordination of the Mass Care and Sheltering Plan and the Statewide Evacuation Plan with locally developed Mitigation Plans will be required in order to establish expectations, roles/responsibilities and to avoid inconsistencies and duplication of efforts at both the State and Local levels.

**Response: Sentences replaced.**